Colac Otway Shire Heatwave Plan

2009



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Disclaimer

This plan has been compiled from a variety of sources including material generally available on the public record, and through the Victorian Government Department of Human Services Planning for Heatwave Guide. Care has been taken to verify accuracy and reliability wherever possible. However, the material does not provide professional advice and does not give any warranty or accept any liability concerning the contents of this work.

Neither the Colac Otway Shire and its employees or Capacity Consulting are liable if any information is incorrect. The Heatwave Plan is a guide only.

Background

This plan has been designed to provide a strategic direction for the Colac Otway Shire and partner agencies to plan for future heatwaves.

There is currently no single definition internationally accepted for a heatwave. Issues such as geography, topography, built structures, rural environmental conditions and urban design impact on temperatures.

'Heatwaves are typically described as a minimum temperature over a prescribed duration that is likely to impact on the health of a community'. *DHS Heatwave Planning Guide 2009.* For the purposes of this policy this definition will be used.

The incidence of heatwaves is increasing in Australia due to climate change. 'Climate change is expected to increase frequency and intensity of heatwaves in Victoria. Evidence shows that heatwaves cause illness and death, particularly in vulnerable population groups'. *DHS Heatwave Planning Guide 2009.*

An example of heatwave conditions was January 2009 in Victoria where there was 3 days of temperatures above 43C and where the temperature did not drop significantly over night. A report by the Office of the Chief Health Officer concluded that there was '374 additional deaths during the heatwave in comparison to the previous five years'. *DHS Heatwave Planning Guide 2009.*

Structure of the Heatwave Plan

This Heatwave Plan aims to reduce the associated risks of heatwave within the Colac Otway Shire community. The plan also provides the following:

- Demographic data;
- A list of the types of vulnerable communities;
- Activities or services impacted;
- Data on vulnerable communities;
- Data from the Bureau of Meteorology on the Colac Otway region;
- A media strategy; and
- Strategies and actions that are proposed at a local level within Colac Otway Shire.

Why develop a Heatwave Plan?

The benefit of preparing and activating a heatwave plan during extreme heat events is to reduce illness and death in the community by:

- Providing information to the community, vulnerable population groups and their carers;
- Increasing understanding of heatwaves in communities and increasing their capacity to respond during heatwaves;
- Developing a Council response to heatwaves;
- Identifying and establishing partnerships with other agencies in relation to heatwave planning;
- Managing emergencies during heatwaves more effectively; and
- Developing long-term and sustainable behavioural change to minimise the impacts of heatwaves on health and wellbeing.

Integration of the plan

The Heatwave Plan has been designed to be integrated with the Municipal Emergency Management Plan and the Municipal Recovery Plan. The integration of these plans provides a structured approach to support the community in emergencies.

Heat alert system

In Victoria the Department of Health monitors the Bureau of Meteorology website and notifies departmental staff and local governments of impending heatwaves.

The Bureau of Meteorology provides a 7 day forecast with the predicted maximum and minimum temperatures. This provides the potential for extreme weather conditions to be predicted in advance. Weather conditions may however change or not reach the predicted temperatures.

The threshold heat alert level of Colac Otway Shire is 30C. This calculated by adding the maximum daily (9am to 9pm) temperature and the following overnight (9pm to 9am) minimum temperature together, then divide by two.

There is a well known relationship between elevated night-time temperatures and increased mortality and morbidity during periods of hot weather. This lack of 'relief' from the heat appears to result in increased mortality in the elderly.

For example:

Tuesday's forecast in Colac is 43C max. with a following overnight temperature minimum being 27C.

(43C + 27C) ÷ 2 = 35C. This is well above the threshold of 30c set for Colac Otway.

The Department of Health will also be considering other factors that may influence vulnerability such as high maximum temperatures, high overnight temperatures, and high temperatures over a prolonged consecutive period. High temperature alerts may be issued in these circumstances even if the mean temperature threshold is not exceeded.

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

Department of Human Services Heatwave Planning Guide

The Department of Human Services has developed the Heatwave Planning Guide– Development of Heatwave Plans in Local Council's in Victoria 2009. The Heatwave Planning Guide should be used as the principle document for research on heatwave planning and information.

The document provides a framework of planning for heatwaves and is designed to be used for the following:

- Hospitals;
- Schools;
- Employers;
- Primary Care Partnerships;
- Community and health services;
- Divisions of General Practice;
- Police, ambulance and other emergency services; and
- Other non-government and government agencies.

The State Government's Environment Our Future Sustainability Action Statement 2006 sets out a whole-of-Victorian-Government policy, identifying heatwave planning in local government as a priority.

To support this, the Department of Human Services developed the Victorian Heatwave Strategy to:

- Raise awareness about the impact of heatwaves on illness and death;
- Commission research to better understand heatwaves; and
- Assist local councils in developing and implementing heatwave plans.

To achieve these objectives, the Department:

- Established a heat alert system to inform local councils and departmental staff of impending heatwaves;
- Hosted Australia's first national conference on climate change and health in 2007, discussing the health impacts of heatwaves;
- Commissioned research to better understand current knowledge, map vulnerability in metropolitan Melbourne and develop heat thresholds; and
- Funded 13 pilot projects (involving 22 local councils) to undertake the process of developing and implementing heatwave plans
  Source: Heatwave Planning Guide 2009

Key findings of the Chief Health Officers Report

The Heatwave Planning Guide also provided information on the key findings of the Chief Health Officer' s Report on the January 2009 Victorian heatwave are included in the following section.

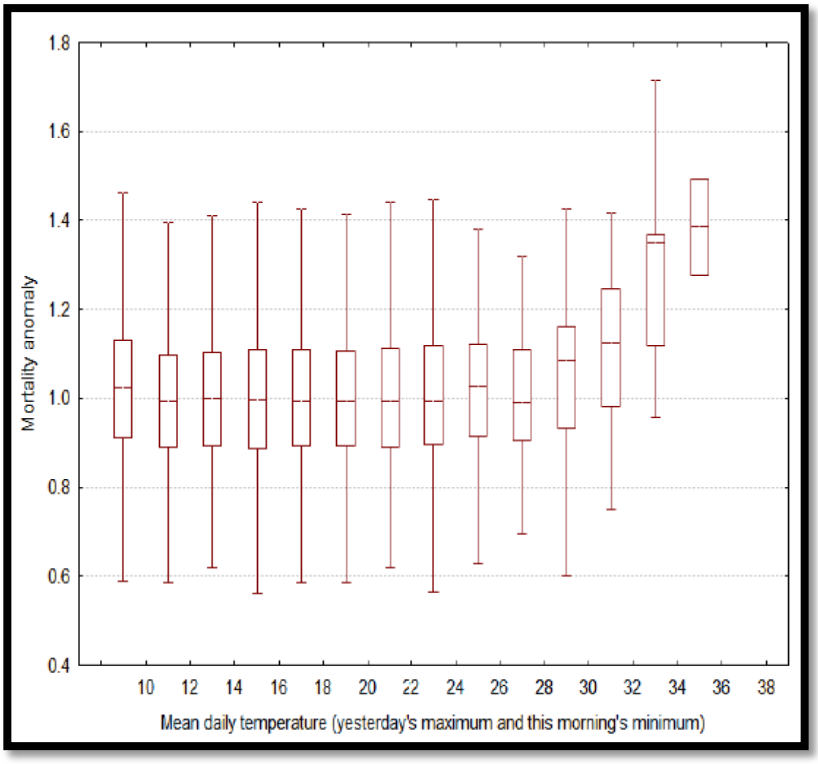
Key findings

- A 25% increase in metropolitan Ambulance Victoria total emergency cases and a 46% increase over the three hottest days.
- A 34 fold increase in the metropolitan Ambulance Victoria cases with direct heat-related conditions (61% in those 75 years and older).
- A 12% overall increase in emergency department presentations, with a greater proportion of acutely ill patients and 37% increase in those 75 years and older.
- An eightfold increase in direct heat-related emergency department presentations (46% in those aged 75 years and older).
- An almost threefold increase in patients dead on arrival (69% being 75 years and older) at emergency departments.
- There were 374 additional deaths over what would be expected: a 62% increase in total all-cause morbidity.

Heatwave Planning Guide 2009 p.4

Mortality and Morbidity

Research by Monash University on heatwaves indicates that when the temperature rises above 30C in Melbourne that it impacts on people's health. The level of mortality and morbidity increases as a consequence. Older age and cardiac disease are the largest cause of mortality and morbidity in Australia. Both of these aspects are known to be sensitive to weather. Graph 1 shows the increase in mortality of people 64 years and over when the temperature exceeds 30C. This increases particularly above 34C.



Graph 1: Nicholls,N. Skinner,C. Loughnan,M. Tapper,N. 2008. Int J Biometeorol

Research by Monash University shows that when there is prolonged hot weather where the temperature does not go below 24C that hospital admission increase. This is evident across the state in prolonged heat. In built areas such as highly populated cities the temperature commonly remains higher at night, which often means that there is no relief for vulnerable communities.

Heat related illness

Heat wave illness is when the body cannot cool itself. The effects can range from mild incidents of a rash or cramp. The most extreme case of illness is heat stroke which can cause death.

Heat cramps commonly display as muscle cramps, spasms within the abdomen, legs and arms.

The Colac Otway Shire Heat Wave Plan investigates the issues at a local level in relation to heat waves and establishes actions for Council, agencies and the community in the event of a heatwave.

Built Environments

Built environments have an impact on variances in temperatures. Construction materials commonly absorb heat and retain more of the sun's heat. Materials such as bitumen attract and retain heat. This can increase the temperature at night in built up areas such as Colac.

The impacts of heatwaves can also effect infrastructure and create stress on resources. Commonly, power outages occur which impact on people's ability to operate air conditioners or refrigerate food. In 2009, there were a number of state wide power outages as the electricity was unable to meet continually high demands.

The impacts of power outages may include:

- Fridges and freezers do not operate to keep food at required temperatures and to keep food safe. This is particularly an issue if loss of power is for an extended periods;
- Some meals on wheels are delivered frozen and are to be reheated in microwaves; They may not be safe to each as a result of power outages;
- Hospitals do have generators to keep appliances operating;

Information will be required in the future through the Department of Human Services to inform the community what action to take when there are power outages. This should include; monitoring of temperatures and opening of fridge / freezers doors and storage of vaccines.

Housing conditions

The design and construction of housing has a major impact on individuals and families in heatwave conditions. Issues include:

- Lack of thermal insulation;
- Living in a multi dwelling building (higher levels can be hotter);
- Living on the top floors of buildings;
- If air conditioning is available;
- The number of windows and the glazing; and
- Vegetation around the home which can decrease the risk.

People who have lower incomes commonly have poorer quality housing that may not have insulation, air condition and good quality blinds. There are also areas in the Colac where public housing was developed that did not have effective insulation.

Behaviour

People's behaviour can influence the likelihood of health issues occurring or death. Examples of people's behaviour impacting on their health in heatwave conditions are as follows:

Increased risks

- Not maintaining hydration;
- Exercising in the hottest part of the day;
- Lack of access to potable water;
- Dressing in hot clothes can increase risks;
- Opening windows in the afternoon at the hottest part of the day; and
- People with pre existing heart conditions.

Decreasing risks

- Maintaining good hydration;
- Social connection with family, friends, carers or the community;
- Using cooling techniques and devices;
- Visiting air-conditioned environments;
- Avoid excessive alcohol intake; and
- Having someone check on vulnerable people.

Children can have fun whilst keeping cool

About Colac Otway

Demographic information

The demographic information for the Colac Otway Shire shows that there is 11.8% of the population in the 70 and above age group. This group is more vulnerable to the effects of heat related illness.

Colac Otway Shire Age Structure		
	2001	2001
Enumerated data	**number**	**%**
0 to 4	1,219	6.1
5 to 11	1,922	9.7
12 to 17	1,884	9.5
18 to 24	1,466	7.4
25 to 34	2,069	10.4
35 to 49	4,224	21.3
50 to 59	2,792	14.1
60 to 69	1,939	9.8
70 to 84	1,932	9.7
85 and over	420	2.1
Total	19,867	100.0

Table 1: Colac Otway Shire population and age breakdown

Socio Economic Disadvantage

The highest level of socio-economic disadvantage within the Colac Otway Shire is within the in the Colac township. One of the key risks in social disadvantaged areas is the quality of the housing. Public housing was commonly constructed with poor quality materials, no insulation and inadequate circulation. A high proportion of public housing would also not have air conditioning or ceiling fans.

People with low incomes can also be vulnerable as they do not have the resources to retro fit houses with adequate insulation.

Rural isolation may also be an issue in heatwave conditions.

Rurally isolated people can be vulnerable to heatwaves

Vulnerable groups within the community

The following table provides a snap shot of the vulnerable communities in relation to the effects of heatwaves.

Vulnerable people	Comment
Older people	Colac Otway has 1,932 in the 70 to 84 age group which is 9.7% of the population. There are 420 people in the 85 age group 2.1% of the population that would be highly vulnerable in a heatwave.
People living alone without support or in rural isolation	People who live alone or in rural isolation and do not have good support networks are at risk in heatwave conditions.
Those receiving HACC services	The Colac Otway Shire Council has a total of 1099 Home and Community Care clients as of September 2009 that are provided with services.
Social isolation	People living in social isolation may be at risk in heatwave conditions especially if they have an existing health condition.
People with a disability or mental health issues	People who have a disability or mental health problems may be at risk due to an inability or awareness of the need to hydrate or cool down especially if they are isolated.
Population of 0-4	Children are at risk of dehydration particularly in vulnerable families. The 0-4 age group for the Colac Otway Shire was 1,219 in 2006 which is 6.1% of the total population.
Pregnant or nursing mothers	Pregnant or nursing mothers can be at risk of dehydration in heatwave. Particularly breast feeding mother or those caring for young children.
People with pre existing medical conditions	People having an existing illness may experience discomfort in heatwave conditions and their health may deteriorate.
Illness that impact on the body's ability to regulate its own temperature	People with a condition that impairs the body's abilities to regulate its own temperature like Multiple Sclerosis
Substance abuse	Alcohol and drugs may lead to dehydration.
Events	Events where large crowds of people gather may increase the risks of dehydration and heat related illness.
Increase risk of violence and family violence	Heatwaves may lead to increases in violence and family violence. This can be an issue for community safety, hospital admissions and police resources.
Sport and physical exercise	Vic Health has recognised that policies are required for sporting activities and events to avoid heat stress. Vic Health also provides tools for clubs to implement practices during periods of heatwave.
Housing	A number of houses within the community are poorly designed for heatwave conditions and do not have air conditioning or insulation.
Workforce	There are considerable Occupational Health and Safety issues for the workforce in times of heatwave. All employers need to implement adequate measures in protect the health and safety of staff in extreme heatwave conditions.
Health care workers	Health Care workers are at risk in the heat when they are required to travel and provide support for clients. They are therefore in the high risk category.
Power blackouts	Power blackouts can affect the whole community and the ability to remain cool.
Financially disadvantaged communities	Financially disadvantaged communities are commonly at risk due to poor housing standards. This group may not have the financial resources to purchase air conditioning and houses without adequate insulation.
Limited access to transport	People with limited access to transport may be at a higher risk in heatwave conditions.

Table 2: Vulnerable communities

Recent history of heatwaves in Colac Otway

Table 3 provides a summary of the temperatures over the past five years where the temperature has exceeded 35C. The statistics also include temperatures over 33.5C were across a number days.

The statistics are based on the Bureau of Meteorology Colac Mount Gellibrand station.

The statistics show that over the last 5 years temperatures have led to several heatwaves. Particularly hot days, were there was three days over 35C, have been highlighted in red.

The hottest weather pattern was in January 2006 and in January 2009. The January 2009 heatwave featured 5 continuous days over 35C with a highest temperature of 44.8C.

Year	Date	Temperature
2005		
	11th January	38.2
	25th January	36.2
	26th January	35.0
2006		
	19th January	**34.6**
	20th January	**37.5**
	21st January	**39.7**
	22nd January	**41.5**
	26th January	39.4
	9th December	38.4
	10th December	36.7
2007		
	10th January	37.4
	16th January	40.9
	29th December	38.0
	31st December	41.3
2008		
	1st January	**35.8**
	4th January	**35.2**
	5th January	**36.8**
	10th January	39.4
	11th January	34.4
	17th February	34.0
	18th February	33.5
	19th February	35.5
2009		
	13th January	37.0
	19th January	36.2
	27th January	**35.3**
	28th January	**43.3**
	29th January	**44.8**
	30th January	**43.8**
	31st January	**35.5**
	7th February	45.4
	27th February	36.4

Table 3: Temperatures registered at the Bureau of Meteorology Colac Mount Gellibrand station above 33.5

Table 4 is the temperatures above 35.0C that were recorded at Colac Otway Light House. This information gives an indication of how much the temperature varies in the Colac Otway Shire given geographical and topography.

Year	Date	Temperature
2005		
	26th January	35.0
2006		
	22nd January	41.5
	26th January	35.0
2007		
	5th January	34.7
	10th January	34.4
2008		
	Nil days over 35.0	
2009		
	28th January	38.1
	29th January	41.7
	7th February	39.4

Table 4: Temperatures registered at the Bureau of Meteorology Cape Otway Light House station above 33.5

The Colac Otway Shire will receive alerts from the Department of Human Services. These alerts will be based on information provided by the Bureau of Meteorology. A system will be required for these alerts to be forwarded onto partner orgnisations.

Messages for the Colac Otway community

The messages that will be delivered to the Colac Otway Shire will be the health messages that are promoted at state wide level. These following messages are provided on the Department of Human Services website:

What is heat-related illness?

Heat-related illness can occur when the body is unable to adequately cool itself. The body normally cools itself by sweating, but sometimes sweating isn't enough and the body temperature keeps rising.

Heat–related illness can range from mild conditions such as a rash or cramps to very serious conditions such as heat stroke, which can kill. Heat may worsen the condition of someone who already has a medical condition such as heart disease. Prevention is the best way to manage heat-related illness.

Who is at risk of heat-related illness?

Anyone can suffer from heat-related illness, but those most at risk are:

- Older people (>65 years), particularly those living alone without air conditioning
- Infants
- Pregnant and nursing mothers
- People physically unwell, especially with heart disease or high blood pressure
- People on medications for mental illness

- Elderly people are more prone to heat stress than younger people because their body may not adjust well to sudden temperature change. They are more likely to have a chronic medical condition and to be taking medication that may interfere with the body's ability to regulate temperature.

Heat Cramps

Heat cramps are muscle pains or spasms, usually in the abdomen, arms or legs. They may occur after strenuous activity in a hot environment, when the body gets depleted of salt and water.

They may be a symptom of heat exhaustion.

- Heat Exhaustion
- Heat exhaustion is a serious condition that can develop into heat stroke.

Warning signs may include:

- Pale and sweating
- Rapid heart rate
- Muscle cramps, weakness
- Dizziness, headache
- Nausea, vomiting
- Fainting

Heat Stroke

Heat stroke is a life-threatening emergency. It occurs when the body is unable to prevent the temperature rising rapidly.

The symptoms may the same as for heat exhaustion, but the skin may be dry with no sweating, and the person's mental condition worsens. They may stagger, appear confused, have a fit, or collapse and become unconscious.

What you can do to prevent heat related illness in yourself or others

- Drink plenty of water and non-alcoholic fluids. (Note: If your doctor normally limits your fluids or you are on fluid tablets, you may need to check how much to drink while the weather is hot)
- Stay indoors, if possible with airconditioning, or in the shade
- Take a cool shower or bath
- Wear lightweight, loose-fitting clothing
- Reduce physical activity
- Check on older, sick and frail people who may need help coping with the heat
- Never leave anyone in a closed parked car
- Don't rely on fans to cool people unless there is adequate ventilation.
- Know the signs and symptoms of excessive heat exposure and know how to respond

If you must be out in the heat

- Limit outdoor activity to morning or evening hours
- Protect yourself from the sun and slip, slop, slap when outside by using sunscreen, wearing a hat and covering exposed skin
- Rest regularly in the shade and drink fluids frequently.

What to do for heat cramps?

- Stop activity and sit quietly in a cool place
- Increase fluid intake
- Rest a few hours before returning to activity
- Seek medical help if no improvement

What to do for heat exhaustion?

- Get the person to a cool area and lie them down
- Remove outer clothing
- Wet skin with cool water or wet cloths
- Seek medical advice

What to do for heat stroke?

- Call an ambulance
- Get the person to a cool area and lie them down
- Remove clothing and wet skin with water, fanning continuously
- Position an unconscious person on their side and clear the airway
- Further information
- If you are concerned that someone may be suffering heat-related illness encourage them to see their doctor.

For further advice or health information contact Nurse on Call – 1300 60 60 24
Source: Department of Human Services website, http://www.health.vic.gov.au/environment/emergency_mgmnt/heat_stress.htm

Heat in cars

Never leave a child or a pet alone in a hot car. On a typical hot Australian summer day, the temperature inside a parked car can be as much as 30 to 40 degrees higher than the outside temperature. That means on a 30 degree day, the temperature inside the car can be as high as 70 degrees.

It is recommended that a communication strategy be developed using the Department of Human Services templates. This information will be targeted at informing the community about heatwaves and how to stay cool and avoid heat stress.

Exercise in hot weather

Sports Medicine Australia has information on the impacts of vigorous exercise in hot weather. Vigorous exercise places some people at risk of heat illness, especially in hot weather. If untreated, heat illness can lead to the more serious and potentially life-threatening condition of heat stroke. By understanding the causes of heat illness health

professionals, coaches, players and anyone involved in sport or physical activity can help prevent heat illness by using the advice provided in the Guidelines to minimise the risks.

Most of the advice involves simple rules of common sense. Listen to your body and stop or slow down if you feel unwell. This is particularly important for children. Make sure that you have access to cool drinking potable water, wear a good hat and take particular care in the hottest parts of the day or year.

The target audience for the Guidelines are all Australians who undertake sport and physical activity, but they will be particularly useful to health professionals involved in the promotion of physical activity, coaches, fitness leaders and sports administrators.

Source: *http://www.sma.org.au/information/heat.asp*

Table 5 provides an example of a sports policy. It is envisaged in times of heatwave where there is prolonged days over 40 degrees that competitive sports events should be cancelled.

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

Table 5: Example of sports policy regarding heat stress

It is recommended that the Sports Medicine Australia guidelines are distributed to sports clubs within the Colac Otway Shire.

Lost Electrical Power

In the event of a heatwave power may not be available at times due to an outage. Appendix 1 provides steps that people can take to deal with power outages whether they be from the power grid or due issues on the property.

Relief and Recovery Centres

In emergency Council has the ability to establish Relief and Recovery Centres to support the community.

Relief Centres are designed to be established during an emergency such as a bushfire, to provide a place where people can safely go to gain shelter, information and resources. Recovery Centres are generally established after an emergency event has occurred. They provide a place for people to gain assistance and support from agencies such as Council, the Red Cross and the Department of Human Services after an emergency.
Given that bushfires commonly occur in the summer period these centres should be planned to be provided in heatwave conditions.

If a Relief or Recovery Centre is opened in heatwave conditions it is recommended that vulnerable people be considered in the planning and implementation process of establishing the centres.

Colac Otway Shire response

Strategies and actions

A number of strategies and actions have been recommended in this Colac Otway Heatwave Plan. They are in grouped into the following areas:

- **Communication:** Communicate heatwave conditions to the Council staff and the community;
- **Integration with Emergency Management Plan:** Integrate heatwave planning into the Emergency Management Plan and responses;
- **Home and Community Care (HACC):** Increase monitoring of vulnerable clients in heatwave conditions and to decrease the risks of heat stress of Community Care Workers;
- **Children's Services:** To provide education through the Maternal and Child Health Service and to meet National Family Day Care Scheme policies and procedures;
- **Council staff:** To ensure Council policies and practices minimise the risk of staff suffering from the effects of heat stress in heatwave conditions.
- **Sport and Recreation:** To promote the Sports Medicine Australia Guidelines to sports clubs and provide potable water through drinking fountains at reserves.
- **Events:** Ensure that event organisers planning processes considers heatwave conditions and comply with Municipal Event Management Event Committee policies and guidelines.
- **Partnerships with agencies:** To develop a range of partnerships with agencies that provide support services to vulnerable communities within Colac**.**
- **Evaluation and updating the Heatwave Plan:** To evaluate and update the Heatwave Plan on an annual basis.

1.0 Communication

Preamble: One of the platforms of the Heatwave Plan is to communicate to Council staff and the community when a heatwave is expected to occur and how to decrease the likelihood of heat stress.

Communication Strategy: Communicate heatwave conditions to the Council staff and the community.				
Number	**Item**	**Details**	**Action**	**Measure**
1.1	Heatwave alerts	Council will receive alerts from the Department of Health in relation to heatwaves. This information will be based on the Bureau of Meteorology forecasts.	Ensure that information is passed onto Council staff, partner agencies and the community where appropriate.	Heatwave alerts are promoted to Council staff, partner agencies and the community where appropriate.
1.2	Use of Department of Health communication material	The Department of Health will be developing communication materials.	Disseminate the Department of Health communication material to Council staff, agencies and the media.	That Department of Human Services communication material is circulated when heatwaves are expected.
1.3	Information when heatwaves are no longer imminent	Advise Council staff when the heatwaves are no longer imminent.	Email staff when the heatwave is no longer imminent and advise that the process has been ceased.	All times heatwaves are downgraded.
1.4	Council website	Include information about heatwaves on the Colac Otway Shire website.	Include information regarding heatwaves on Council website and links to the Department of Human Services and fact sheets.	That information regarding heatwaves is available on the Colac Otway Shire website.

2.0 Integration with Emergency Management Plan

Preamble: This Heatwave Plan has been developed with the core principle that planning for heatwaves should be considered as part of emergency management.

Integration with Emergency Management Plan Strategy: To integrate heatwave planning into the Emergency Management Plan and responses.				
Number	**Item**	**Details**	**Action**	**Measure**
2.1	Integration with the Emergency Management Plan	Ensure the heatwave planning is integrated into Council's Emergency Management Plan.	Revise the Emergency Management Plan to include planning and responding to heatwaves.	That the Emergency Management Plan is revised to include Heatwave procedures.
2.2	Emergency Relief and Recovery Centres	Ensure that Relief and Recovery Centres in are planned to be heatwave conditions.	Review the Recovery and Relief Centre Plan. Include the following resources at Emergency Relief and Recovery Centres in heatwave conditions: • Adequate potable water • Wet towels • Fans for cooling in temperatures less than 35C • First aid trained volunteers or staff	That Emergency Relief and Recovery Centres are planned to consider heatwave conditions
2.3	Municipal Public Health Plan	Integrating the Heatwave Plan into the Municipal Public Health Plan.	Ensure that the Heatwave Plan is integrated into the Municipal Public Health Plan.	That the Heatwave Plan is integrated into the Municipal Public Health Plan.

3.0 Home and Community Care (HACC)

Preamble: Home and Community Care (HACC) clients are venerable to the effects of heatwaves. Council therefore requires specific structures to support those clients and the workers who look after them.

Home and Community Care (HACC) Strategy: To increase monitoring of vulnerable clients in heatwave conditions and to decrease the risks of heat stress of Community Care Workers.				
Number	**Item**	**Details**	**Action**	**Measure**
3.1	Monitoring vulnerable HACC clients.	To increase monitoring of vulnerable HACC clients when heatwave conditions are being experience.	Increase the number of contacts with vulnerable clients in heatwave conditions. Specifically target those who are most likely to suffer from heat stress due to their health status or conditions within their home.	The number of contacts with vulnerable HACC clients in heatwave conditions.
3.2	Assessment and review	Include heatwave as part of assessments and reviews of HACC clients.	To include vulnerability to heatwave as part of assessment and reviews of HACC clients.	That heatwave vulnerability is included in assessments and review of HACC clients.
3.3	Eco Wise assessments	Undertake Eco Wise assessment and refer where appropriate.	Refer clients houses to Eco Wise that would benefit from insulation improvements.	The number of clients referred and houses improved.
3.4	Looking after Community Care Workers	In heatwave conditions decrease the risks of heat stress for Home and Community Care Staff.	In heatwave conditions introduce the following actions: • Shorter shifts for the Community Care Workers visiting clients • Postpone general home care duties • Promote for staff to look after themselves in heatwave conditions.	That Community Care Workers do not suffer from heat stress.
3.5	Extreme Weather Conditions Policy	Colac Otway Shire has a policy for Extreme Weather Conditions for Aged and Disability Services.	Implement the Extreme Weather Conditions Policy.	The number of times that the Extreme Weather Conditions Policy is implemented.
3.6	Training of Community Care Workers	Provision of training for Community Care Workers.	Provide training for Community Care Workers on what to look out for during home visits during heatwave conditions such dehydration and heat stress.	That all relevant Community Care staff are trained prior to the 2010 summer.
3.7	Integration with policies, strategies and procedures of other agencies.	There are a number of other agencies that will be developing heatwave policies, strategies and procedures.	To link with the policies, strategies and procedures from other relevant agencies in the sector.	That the Heatwave Plan links with relevant agencies processes.

4.0 Children's Services

Preamble: One of the vulnerable groups identified in the Heatwave Plan is nursing mothers, children and new born babies. Council provides a number of services to this group through Family Day Care and Maternal and Child Health Services.

Children's Services Strategy: To provide education through the Maternal and Child Health Service and to meet National Family Day Care Scheme policies and procedures.				
Number	**Item**	**Details**	**Action**	**Measure**
4.1	Maternal and Child Health Service	To provide information to families on heatwaves and how to avoid heat stress for new born babies, nursing mothers and young children.	To provide information to families that has been developed by the Department of Health on heatwaves.	That all families who attend the Maternal and Child Health Service are provided with information on heatwaves.
4.2	Family Day Care	To meet Family Day Care National Policies in relation the heatwaves.	For the Family Day Care Service to undertake the following actions: • Assess that Family Day Care properties have appropriate cooling. • To adhere to the Family Day Care water policy of having potable water readily available. • Check that all Family Day properties have appropriate insulation. • Refer any properties that do not have appropriate insulation to Eco Wise.	That all Family Day Care providers meet National Accreditation Policies.
4.3	Department of Education Early Childhood Development(DEECD)	The Department of Education Early Childhood Development has developed policies in relation to heatwaves and children's services.	Ensure that strong communication occurs between the DEECD and Council in relation to heatwave policies, strategies and procedures.	That Council has strong communication links with DEECD.

5.0 Council staff

Preamble: Council workers may be vulnerable to heat stress in heatwave conditions.

Council staff Strategy: To ensure Council policies and practices minimise the risk of staff suffering from the effects of heat stress in heatwave conditions.				
Number	**Item**	**Details**	**Action**	**Measure**
5.1	Occupational Health and Safety	Heatwave policies	Develop a heatwave policy for Council staff to minimise the risk of staff suffering from the effects of heat stress in heatwave conditions	That a heatwave policy is developed for staff.
5.2	Communication to staff	Communicate to staff when heatwave conditions are expected.	That managers and staff are informed when heatwave conditions are expected.	That communication to staff occurs when heatwave conditions are expected.

6.0 Sport and Recreation

Preamble: Vigorous exercise places some people at risk of heat illness, especially in hot weather. There is therefore a need to educate the community and administrators of sport and recreation competitions about the risks of vigorous activity in heatwave conditions.

Sport and Recreation **Strategy:** To promote the Sports Medicine Australia Guidelines to sports clubs and provide potable water through drinking fountains at reserves.				
Number	**Item**	**Details**	**Action**	**Measure**
6.1	Promotion of Sports Medicine Australia Guidelines to sports clubs.	Vigorous exercise places some people at risk of heat illness, especially in hot weather. Sport Medicine Australia has established guidelines for clubs and administrators.	Distribute the Sports Medicine Australia Guidelines on the risks of heat illness to sport and recreation clubs within the Colac Otway Shire.	That all clubs and associations receive a copy of the Sports Medicine Australia Guidelines.
6.2	Access to potable water at sporting clubs.	Ensure that there is access to potable water at sporting clubs.	Ensure that there is access to potable water at sporting clubs.	That all sporting clubs have adequate access to potable water, inside and outside sporting pavilions.
6.3	Information for individuals	Develop information for individuals in relation to heat stress.	Develop information material that educates individuals on the risks of participating in sport in heatwaves. This should be based on Department of Human Services Templates and Sports Australia Guidelines.	That an information sheet is developed for individuals.

7.0 Events

Preamble: It is essential that event organisers have adequate policies and procedures in place if they are planning events at times of the year when a heatwave may potentially occur.

Events
Strategy: Ensure that event organisers planning processes considers heatwave conditions and comply with Regional Municipal Event Management Planning Committee policies and guidelines.

Number	Item	Details	Action	Measure
7.1	Events heat stress policies and procedures.	As a number of events are held in the hotter months the community and visitors could be at risk in heatwave conditions. There is a need for event organisers to have policies and procedures in place to maintain the health and wellbeing of participants if heatwave conditions are experienced.	Ensure that event organisers have heatwave policies and procedures. This could include: • Cancellation of events due to high temperatures. • Postponing events until when the temperature has decreased. • Holding events either early or later in the day when the temperature is lower. • Providing free potable water for participants. • Providing cold water showers at events. • Providing shade for participants. • Event organisers to comply with Regional Municipal Event Management Planning Committee policies and guidelines.	That all event organisers comply with heat stress policies and procedures developed by the Regional Municipal Event Management Planning Committee policies and guidelines .

8.0 Partnerships with agencies

Preamble: Through strengthening partnerships there is an opportunity to provide a strong network of support services to vulnerable people within the Colac Otway Shire.

Partnerships with agencies **Strategy:** To develop a range of partnerships with agencies that provide support services to vulnerable communities within Colac.				
Number	**Item**	**Details**	**Action**	**Measure**
8.1	Investigate partnerships	To investigate potential partnerships with service providers.	For the Colac Otway Shire to work in partnership with agencies in delivering support to vulnerable communities in heatwave conditions. The following agencies are potential partners: • Otway Health and Community Services • Colac Area Health • Victoria Police • Churches • CFA • Community clubs and organisations • Service clubs	The range of services and networks that are developed.
8.2	Communication	Communicate potential heatwave conditions to agencies.	Circulate warnings from the Department of Human Services on heatwaves.	That any Department of Human Services warnings are circulated to partner agencies.
8.3	Develop resources	To develop resources in partnership with agencies.	To work in partnership with agencies to develop resources for communicating heatwave information to the community.	The number of resources developed.

9.0 Evaluation and update the Heatwave Plan

Preamble: There is a need to evaluate and update the Heatwave Plan on an ongoing basis to ensure that the information is up to date and the communication tools remain relevant to the community.

Evaluation and update the Heatwave Plan **Strategy:** To evaluate and updating the Heatwave Plan on an ongoing basis.				
Number	**Item**	**Details**	**Action**	**Measure**
8.1	Evaluating and updating the Heatwave Plan.	To regularly update the heatwave plan.	To evaluate and update the Heatwave Plan when new changes are required or when new information is available.	That the Heatwave Plan is evaluated and updated on an annual basis.
8.2	Incorporate new communication tools	As new communication tools are developed that the Heatwave Plan is updated.	To incorporate new communication tools when become available from the Department of Human Services including: • Marketing material • New alert systems • New communication messages from partner agencies	That new communication tools are incorporated into the Heatwave Plan.

Appendix 1

Power Failure Advice

Before a Heatwave:

- Locate your electricity distributor's Faults Response telephone contact details and your 11 digit National Meter Identifier number (both numbers can be found on the power bill you receive from your retailer), and record these numbers in a safe place, such as on the fridge - they'll help your electricity distributor to identify you quickly and provide accurate and rapid information when you call
- Make sure you have a battery-powered radio on hand, which you can tune in to the frequency for your local radio station - this service will provide updates during widespread emergencies
- Ensure your mobile telephone remains charged so you can ring your electricity distributor or another authority if you need to – remember, mains operated telephones will not work during a power outage
- Keep a torch and spare batteries handy
- **If your garage door is electric, ensure you know how to open it manually**
- **Keep any other emergency contact numbers you may need on hand**
- If you are working with a computer, make sure you save files regularly to prevent losing any work before a power outage occurs
- Consider purchasing power surge protection equipment from an electronics retailer, or through a licensed electrician, to protect sensitive appliances such as plasma TVs and computers. You must take reasonable steps to protect your home or business from high voltage power surges, such as ensuring you are covered for them under your insurance policy. Remember there are some limitations to the compensation you will be eligible for from your electricity distributor.

During a Power Outage:

- Check if other houses or businesses in your street have lost power. If it is only your property which is affected, check your fuses if you can, or see if you can identify the cause. This information will help your electricity distributor give you the right advice if you ring them
- Switch off all appliances, but leave a light on to know when power is restored
- Unplug sensitive equipment such as computers and plasma TVs
- Don't phone 000 unless it's a genuine emergency. Your electricity distributor has a dedicated contact number for service difficulties and faults, which operates 24 hours a day, seven days a week, and should also be used to report fallen power lines
- Avoid opening the fridge or freezer, so your food stays as fresh as possible
- If driving and the traffic lights go out, slow down and give way to the right
- Above all, please be patient and spare a thought for power company crews, who are working safely and rapidly, often under harsh conditions, to restore your service.

After a Heatwave Outage

- Listen to a portable radio for official advice and power restoration information
- Check on your neighbours, particularly the elderly, if you think there may be any reason for concern
- Don’t connect a portable generator to the electrical wiring of your house or office unless an isolating switch has been permanently installed by a licensed electrician

- Households still without power after electricity supplies have been restored to their neighbourhood should seek the help of a licensed electrician or their electricity distributor.

*Please note that these hints were adapted from Powercor information concerning storm events.

References

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http://www.bom.gov.au/weather/vic/maps/vic-forecastmap-7day.shtml#

Australian Bureau of Statistics
http://www.abs.gov.au

Community Indicators Victoria
http://www.communityindicators.net.au/welcome_to_community_indicators_victoria_civ

Commonwealth Scientific and Industrial Research Organisation
http://www.csiro.au

Municipal Association of Victoria
http://www.mav.asn.au

Sports Medicine Australia Guidelines
http://www.sma.org.au/information/heat.asp

Victorian Council of Social Service
http://www.vcoss.org.au