



City of Greater Geelong Heatwave Management Plan

Compiled By: Heatwave Advisory Group

Date: 16 October 2009

LIST OF REVISIONS

Revision Number	Date	Change/ Reason for Change
1	October 2009	Document first drafted
2	January 2010	Changes to document that reflects inclusion of "Relevant Citysafe Procedures relating to Heat Control Strategies"
3	23 February 2010	Adopted By Council

PART ONE - GENERAL

1.1 Background

The Department of Human Services requires all local governments to submit a Heatwave Management Plan identifying how the municipality will prepare for and respond to heatwaves. The heatwave plan is a sub-plan of the Geelong Health & Wellbeing plan (which in turn sits under the Municipal Emergency Management Plan).

The following should be read in conjunction with these other documents.

This plan is an 'early alert' plan, as all heatwave notifications will come 7-days prior to the anticipated event. It can therefore act as a trigger for readiness response to many other subplans identified under the Municipal Emergency Management Plan, such as Wildfire.

Climate change is expected to increase the frequency and intensity of heatwaves in Victoria. International and Australian experiences show that heatwaves are known to increase the incidence of illness and death¹.

1.2 Aim

The purpose of this sub plan is to outline how the City of Greater Geelong plans to mitigate the impact of heatwaves on public health.

1.3 Objective

- To identify systems and processes that must be in place to allow the City of Greater Geelong to respond to heatwaves.
- To outline how the City of Greater Geelong will respond to specific Bureau of Meteorology heatwave notifications.

¹ <http://www.health.vic.gov.au/environment/climate/heatwave.htm>

1.4 Heatwaves and public health

There is no universally accepted definition of a heatwave. It is accepted that the higher the temperatures, and the longer the duration, the higher the mortality rate will be; with the greatest threat occurring when high day time temperatures continue with little overnight relief.

The Bureau of Meteorology describes heatwaves as the most “under-rated weather hazard in Australia”² Research has shown that “heatwaves kill more people than any other natural hazard in Australia” and that between 1803 and 1992, at least 4287 people died as a direct result of heatwaves”.

In January 2009, Victoria experienced 3 consecutive days of temperatures above 43 degrees with little overnight relief. During the heatwave of 2009, 374 additional deaths were reported by the Chief Health Officer³. Unlike most other emergency situations heatwaves are more likely to result in health implications rather than structural damage, and have an accumulative impact rather than sudden dramatic shock. However, heatwaves rarely occur in isolation. Infrastructure stress and failure, and other natural emergencies can compound stress on the community, economy and services. As a passive emergency, heatwaves are often overshadowed by droughts and bushfires.

Heatwaves can happen suddenly, and rapid rises in temperature affect vulnerable people very rapidly. Anyone can be affected. Those at particular risk include:

- Adults over 60 years of age including frail elderly adults
- People with a pre-existing medical condition
- Babies and children up to 4 years
- People living alone or with little social contact
- People with a disability

² <http://www.bom.gov.au/weather/wa/sevwx/perth/heatwaves.shtml>

³ January 2009 Heatwave in Victoria: as Assessment of Health Impacts – DHS report

To assist with the process of community notification, a heatwave threshold mean of 30 degrees for the Barwon region was developed by Monash University. This threshold, the mean between the highest day time temperature and the subsequent overnight low, will act as a trigger point for enacting a heatwave community notification response (see Part Five for more information).

PART TWO – MANAGEMENT ARRANGEMENTS

2.1 Heatwave sub-committee

The Heatwave sub-committee is a cross Council group consisting of representatives from those departments within Council who either:

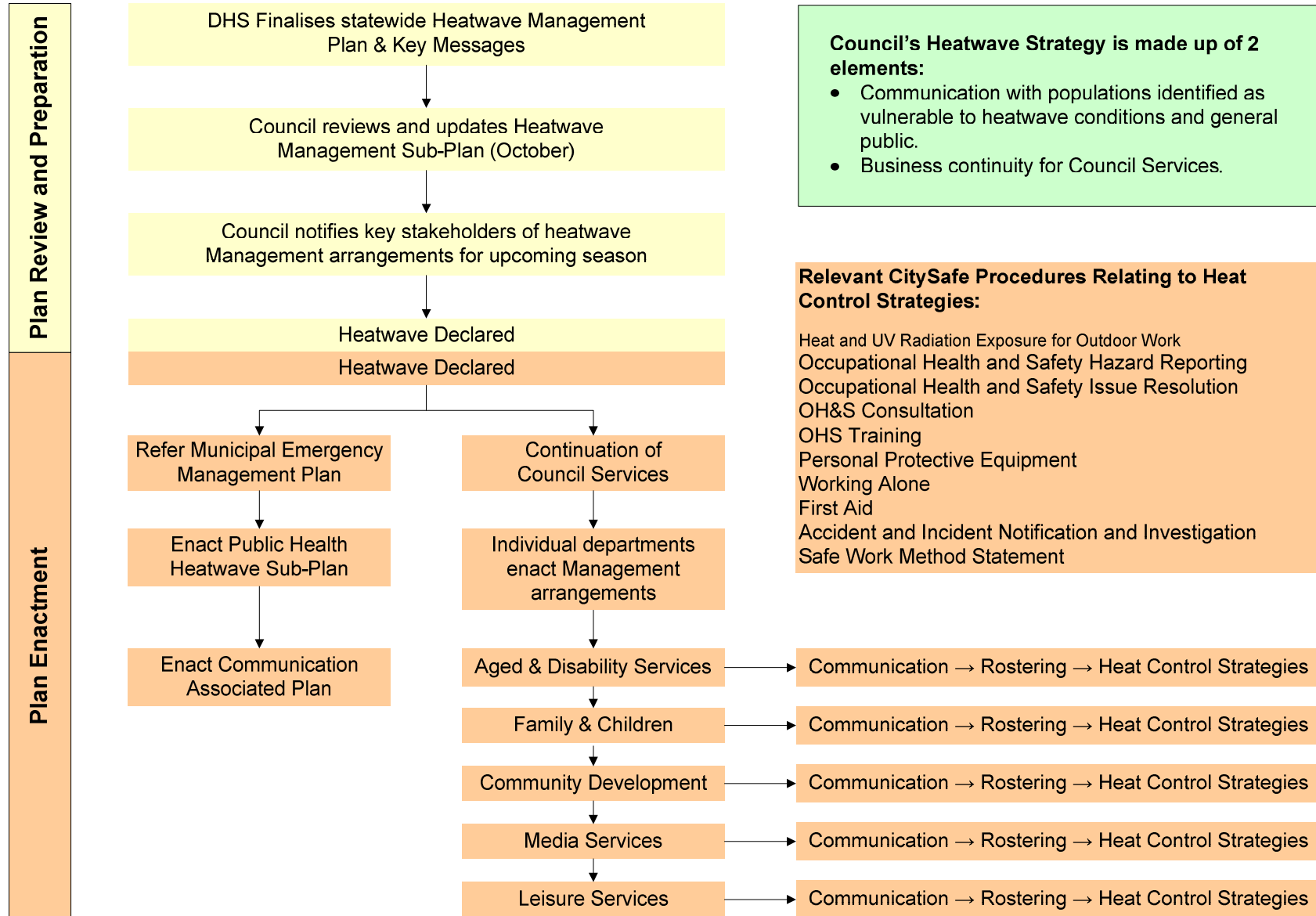
- a) deal directly with the population groups identified in section 1.4 as being vulnerable to heatwave conditions; or
- b) will be actively engaged in monitoring and preparing the community for response to a heatwave incident.

Departments represented include:

- Aged and Disability Services
- Environmental Health
- Risk Management
- Community Development
- Family and Children’s Services
- Marketing Services
- Infrastructure Operations (Municipal Emergency Recovery Officer or MERO)

The Committee will meet at least once per year. The Public Health Emergency Coordinator is responsible for calling and chairing this meeting and updating this plan. Also, as the control agency, the Department of Human Services will be represented by

2.2 Annual Heatwave Management Flowchart



PART THREE – RISK / HISTORY

3.1 Heatwave impacts in Geelong

Extreme heat is a generic health stressor and can affect all members of the community.

Social health and community impacts refer to the impact that an emergency may have on the health and wellbeing of individuals and the community which includes, transport, water and power outages.⁴

Increasing temperatures can be compounded by other factors such as humidity, air and radiant temperature and wind speed, to generate a situation where humans and their interests are even more vulnerable. It is the combination of these and other effects that will determine if an emergency is occurring.

There is no local data available to demonstrate the impact of the most recent heatwaves (January 2009) in the Geelong region, however a report by the Chief Health Officer identified that “this heatwave clearly had a substantial impact on the health of Victorians, particularly the elderly. This has been shown to be the case for heat related conditions such as heat stress and dehydration, whether measured by ambulance attendances, locum doctor visits or hospital emergency department attendances. Mortality during the week of the heatwave was also increased as measured by reportable deaths to the State Coroner and total deaths measured by reports to the Victorian Registry of Births, Deaths and Marriages.”⁵

As mentioned, the elderly and the very elderly have been found to be most at risk. Their increased vulnerability relates to a combination of an impaired physiological response to heat (reduced thirst response and diminished ability to sweat) and the higher prevalence of chronic diseases involving the cardiovascular, respiratory, renal and endocrine systems⁶. Of the 374 excess deaths in Victoria for the week of 26 January to 1 February 2009, the greatest number (248 in total) were amongst those aged 75 years or older⁷. This clearly highlights the need to focus on older residents as a key target group for any initiatives undertaken by the City of Greater Geelong.

⁴ <http://www.climatechange.gov.au/impacts/regions/vic.html>

⁵ January 2009 Heatwave in Victoria: An Assessment of Health Impacts, Department of Human Services, p 15

⁶ <http://www.climatechange.gov.au/impacts/regions/vic.html>

⁷ January 2009 Heatwave in Victoria: An Assessment of Health Impacts, Department of Human Services, p 13

3.2 People most Vulnerable to Heatwaves

Below is the projected population of older people in the City of Greater Geelong until the year 2031. With climate change predicted to increase the frequency of heatwave conditions and an increasing proportion of older people expected to be living in the municipality, it is vital that the City puts into place some long-term plans to mitigate the impact of these conditions on these populations.

Age Group	2009	2016	2031
60 – 85+	22.0%	23.1%	24.0%

PART FOUR – PREPAREDNESS

Prior to this plan there was no coordinated way in which the City of Greater Geelong responded to heatwaves. The initial challenge is to put into place processes that prepare the organisation to respond in a timely and uniform way. The organisation will prepare in the following ways:

4.1 Establishment of communication networks

One of the most important ways Council will assist the community to deal with heatwaves is by providing information about how to reduce the impacts of heat-related stress. This information will be provided on two levels:

a. Populations vulnerable to heatwaves

To support people most likely to be impacted by heatwaves, relevant departments will ensure the following has been completed by the start of the summer season:

- i. Create email lists of stakeholders in contact with vulnerable population groups to allow forwarding of heatwave notifications (refer appendix 2 for suggested list with relevant department responsible for collating list and forwarding notifications to these stakeholders).
- ii. Provide DHS fact sheets/brochures about coping during a heatwave to all clients (templates for these due end November).

b. General community

Council will also distribute heatwave key messages using existing Council communications, such as the Community Update publication. Refer to the Communication Plan (appendix 3) for more information.

4.2 Business continuity for Council Services

The Organisation has existing protocols that cover employees, contractors and volunteers through its Safety Management System. In addition to this, individual departments will prepare or refine existing departmental heatwave work instructions (refer appendix 1 for detailed Aged and Disability Service arrangements).

4.3 Tasks & Responsibilities

The following table outlines preparation works that must be completed on an annual basis and the responsible individuals/departments. These tasks should be included in Corvu, the organisation's business reporting database.

Tasks	Responsibility	Timeline
Preparation and updating of the Heatwave Management Plan	Public Health Emergency Coordinator	Mid October
Preparation and annual updates of email stakeholder notification lists (see appendix 2 for sample lists)	Aged and Disability Services Family and Children's Services Community Development Geelong Otway Tourism Leisure Services	1 st week of November
Preparation/refinement of heatwave work instructions for relevant Council departments (see appendix 1 for Aged and Disability Services example)	Aged and Disability Services Family and Children's Services Community Development Geelong Otway Tourism Leisure Services	End of November

Tasks	Responsibility	Timeline
Preparation of community information campaign	Marketing Services	End of November
Distribution of information to client groups most vulnerable to heatwave conditions	Aged and Disability Services Family and Children's Services	Ongoing

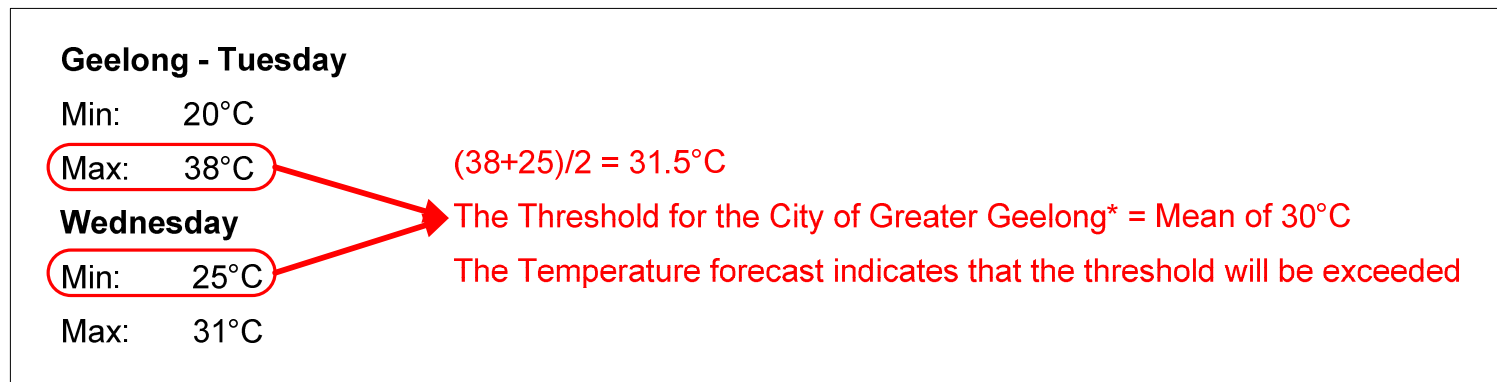
PART FIVE - WARNINGS

To assist with the process of community notification, a heatwave threshold mean of 30 degrees for the Barwon region was developed by Monash University. This threshold will act as a trigger point for enacting a heatwave community notification response.

The thresholds were developed by Monash University who analysed data from previous years to establish what temperature was the trigger for higher morbidity and mortality due to heat over summer. The thresholds vary across the state in a similar way to the normal maximum temperature because people who live in hotter areas of the state are likely to be more tolerant to the heat.

The mean temperature is calculated from the forecast **daily maximum** and the forecast **daily minimum for the following day** (i.e. the period from 9 am – 9 pm on any given day).

An example of this calculation is demonstrated below:



* Based on the Bureau of Meteorology forecasts, the mean temperature for a locality (SD) can be calculated for any current 7-day period. The Bureau of Meteorology Victorian 7-day forecasts are available at: <http://www.bom.gov.au/weather/vic/maps/vic-forecast-map-7-day.shtml>

As the threshold is a mean temperature for a 24-hour period (not the maximum daily temperature in isolation), it is anticipated that there will only be a few days a year where the threshold is met.

PART SIX – RESPONSE

The following identifies how the City of Greater Geelong will respond in the case of a heatwave notification.

6.1 Levels of Response

Stage	Action Required	When	Responsibility
Response – Stage 1 ALERT	Notification email sent out to relevant departments	7 days prior to 24 hour period averaging above 30°C	Public Health Emergency Coordinator
Response – Stage 2 STANDBY	Notification email sent out alerting stakeholders to prepare to activate heatwave management arrangements Media communication plan enacted	4 days prior to 24 hour period averaging above 30°C	Public Health Emergency Coordinator Marketing Services
Response – Stage 3 ACTIVATION	Notification email sent out alerting stakeholders and relevant Council staff of heatwave conditions Individual departments enact heatwave management arrangements	24 hours period averaging above 30°C	Public Health Emergency Coordinator Relevant Council Departments
Response – Stage 4 DEACTIVATION	Debrief meeting to review the process for heatwave notification Update Heatwave Management sub-plan to reflect feedback	When 7 day forecast does not predict 24 hour period averaging above 30°C	Public Health Emergency Coordinator, relevant departmental staff and DHS representative

6.2 Communication Plan

6.2.1 Key Message(s)

The Department of Human Services has contracted a consultant to create and market test key messages with a range of stakeholder groups. It is anticipated that this information will be made available by the end of November.

6.2.2 Heatwave information resources

As part of the review of key messages, the Department of Human Services also plans to distribute templates for resources including posters, fact sheets and brochures. These templates will be able to have a Council logo added and then used in a variety of forms, including hard copy, web based resources and newsletters. There is also a possibility that resources like drink bottles, thermometers, fridge magnets will also be recommended. The City of Greater Geelong will wait on advice about this aspect of the campaign before proceeding.

6.2.3 Communication avenues

The City of Greater Geelong will implement a range of communication activities to notify clients and local services that work with populations identified as vulnerable during a heatwave (see Part Four). To notify the general community, a communications strategy has been developed (see appendix 3) to both prepare residents for the heatwave and give them tips for minimising the impacts. Methods for communication will include direct mail (Community Update), external media (radio and newspaper), internal communications and the web.

One of the key ways that the City of Greater Geelong hopes to be able to respond to a heatwave notification is by approaching local media and requesting that the Department of Human Services' key messages are included with weather information in 1-2 days preceding an anticipated heatwave event. Media organisations to be approached include the Geelong Advertiser, K-Rock FM, Bay FM, Vision Australia Radio and The Pulse. It is hoped that this information will be provided free-of-charge, as a service to the community, and that a notification system can be put into place by Media Services before the onset of the 2009/10 summer season.

APPENDIX 1

Aged and Disability Services Heatwave Work Instructions

The following procedure has been developed to address the needs of vulnerable clients and staff to protect them from the health impacts of prolonged exposure to extreme heat.

- The Senior Administration Officer will print a client list of all vulnerable clients who are not rostered to receive a service on the day a Heat Alert has been issued.
- Clients identified as vulnerable are (Community Aged Care Clients-CACPS, PC,HCPC).
- A & DS staff to contact each client on vulnerable list and the following key messages are to be communicated:

If a Heatwave is predicted or is happening, it is recommended that you:

- **Drink small amounts regularly even if you are not thirsty**
 - **Drink cool water and avoid ice**
 - **Avoid caffeine, alcohol or sugary drinks**
 - **Eat small meals more often**
 - **Slow down**
 - **Wear lightweight and light-coloured cotton clothing**
 - **Take additional cool showers during the day**
 - **Stay inside**
 - **Shade your house with blinds or curtains**
 - **Stay inside between 10.00am and 3.00pm**
 - **Turn on air conditioner while at home**
 - **Turn off heaters**
-
- Tune in 774 ABC, K Rock, Bay FM for Heatwave Information
 - Dial '000' for any emergency assistance like ambulance, Fire Brigade if any personal accidents occur.
 - Keep in touch by phone with family, neighbours or support people.

For **clients who receive service during a heatwave**, staff are requested, to ensure that the above key messages are communicated. If staff, have identified any heat health emergencies they are to follow "Emergency Response" procedures and dial '000'.

Aged & Disability Services Staff

Client safety is important so remind clients of the above “Key Messages”. If conditions are unworkable for staff the following procedure is to be implemented.

- Community Care Worker to contact Team Leader to report the situation and to receive further instructions.
- Assessment & Review Officers, Care Managers and other A & DS staff or Officers are to report to their supervisors for an update and use their discretion and either continue with assessments and tasks or return to the office.
- Administrative control measures for Team Leaders and supervisors who are unable to complete services, tasks, assessments or reviews due to the extreme heat are to use the following measures:
 1. **Can the service be rescheduled**
 2. **Can a work or rest regime be implemented**
 3. **Can employees be rotated to reduce exposure**
- If conditions are unsafe for working and control measures not possible, CCW, ARO, CMO and other A & DS staff or officers to cease work.
- Clients scheduled with a service or an appointment who can't be reached will be contacted by A & DS staff members to ensure they are coping during the heatwave and are reminded to:
 1. **Tune into AM 774 ABC Radio for updates**
 2. **Emergencies dial '000'.**

APPENDIX 2

Sample email stakeholder lists

External stakeholders to be included on heatwave notification email list	Responsible Department
Red Cross Telecross Do Care Bellarine Community Police Register	Aged and Disability Services
Salvation Army Homeless Services	Community Development
Family Day Care Providers	Family & Children's Services
Tourism Information Volunteers Surf Life Saving Clubs	Geelong Otway Tourism

APPENDIX 3

COMMUNICATIONS STRATEGY **HEATWAVE RESPONSE PLAN STEERING GROUP**

Accountability:

General Manager Community Services Irene McGinnigle

Spokesperson:

Mayor Cr John Mitchell, Karen Pritchard, Manager, Aged & Disability Services

Aims and Objectives:

- To communicate the details and benefits of the Heatwave Action Plan
- Coordinate and utilise media coverage of the preparations for and implementation of the Heatwave Action Plan to achieve maximum awareness among Council staff and the wider public

Situation Analysis:

Deaths and serious health effects caused by days of extreme heat over summer are generally underestimated by the community and the media.

The likelihood of an increase in the number of days of extreme heatwave during the coming summer will place significant pressure on Council staff, Council services, themselves and the general community.

DHS has provided the City of Greater Geelong with \$25,000 to be used in developing a Heatwave Response Plan for this municipality.

The Plan is to be completed by the end of October and then submitted to the Department of Environmental Health.

Potential issues:

- Very short timeline for completion of the Plan
- Possibility of a hot spell before all aspects of the Plan have been bedded in
- Complex nature of Council's operations, and the interaction of a large number of departments who will be involved in the Plan

Target Audiences:

- Council staff
- General community right across the municipality

Key Stakeholders:

- As above

Key Messages:

The Department of Human Services intends to distribute a range of key messages to be used throughout the upcoming summer season. These should be received by the end of November, however it is expected the messages are likely to cover the following:

- Emphasise the serious health hazards posed by periods of extreme hot weather
- Focus additional attention on vulnerable members of the community (the young, the elderly, the infirm, the isolated)
- Encourage community members and Council staff to look after one another (neighbours particularly encouraged to check on one another, especially where neighbours are elderly and/or living alone)
- Audit community infrastructure in advance of the onset of summer weather, and maintain close check of facilities and equipment that may be needed to counter effects of heatwave conditions on vulnerable members of the community

Communication Activities:

Direct Mail

- Community Update article

External media

- Approach local media about including key messages for heatwave in weather forecasts leading up to anticipated heatwave
- Media release and photo opportunity to coincide with completion of Heatwave Response Plan
- Advertisement to be prepared in advance, ready for inclusion in City News pages of Saturday's editions of the Geelong Advertiser when appropriate
- Possible advertising in local cinemas
- Explore possibility of cooperation with General Practitioners' Association to disseminate information on Plan

Internal Communications

- Updated advice to stakeholders
- Councillor Weekly Update
- CoGG Customer Service Department to be advised of an upsurge of inquiries in days leading up to and during declared heatwave conditions
- CoGG Customer Service Department to be provided with Information Sheet linked with copies of Heatwave Response Plan

Web

- City website – Heatwave Response Plan published on website as soon as possible, with associated messages from government and community groups as appropriate
- Regular updates including photos and copies of relevant media releases
- List of contact numbers, email addresses etc for residents seeking additional information and/or assistance