

# Heatwave Planning Guide

Development of heatwave plans in local councils in Victoria





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## Foreword

Summer is a time when many Victorians enjoy warm weather and outdoor activities. However, high temperatures can negatively impact the health and wellbeing of the community and vulnerable population groups such as older people, those with a disability or a pre-existing medical condition.

In the summer of 2009, Victoria experienced a statewide heatwave with temperatures among the highest ever recorded. The Chief Health Officer estimated that 374 additional deaths occurred during this heatwave in comparison to the previous five years.

Climate change is expected to increase the frequency and intensity of such heatwaves.

The Public Health Branch has developed the 'Heatwave Planning Guide' (the guide). The guide provides local councils with a framework that can be used to develop heatwave plans and support their local community during heatwaves.

The material is based on the experiences of the local councils involved in the 13 pilot projects, as well as international experience. The guide provides councils and their officers with templates, strategies and background information, with an emphasis on identifying and protecting vulnerable population groups.

The guide incorporates the principles used by existing municipal planning frameworks, such as, the Environments for Health planning framework. This approach has been adopted in order to align heatwave planning requirements with existing municipal planning processes, such as the Municipal Public Health Plan and the Municipal Emergency Management Plan.

I encourage all local councils in Victoria to use the Heatwave Planning Guide to assist in development and implementation of heatwave plans to support their local community and vulnerable population groups to adapt to heatwaves.



**Dr Jim Hyde**  
**Director, Public Health**





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## Executive summary

Climate change is expected to increase the frequency and intensity of heatwaves in Victoria. International and Australian experiences show that heatwaves increase the incidence of illness and death – particularly among vulnerable population groups such as older people, people with a pre-existing medical condition and people with a disability.

In January 2009, Victoria experienced an unprecedented statewide heatwave, with Melbourne experiencing three consecutive days of temperatures above 43°C and little overnight relief. The report by the Office of the Chief Health Officer concluded that there were 374 additional deaths during the heatwave in comparison to the previous five years.

The Heatwave Planning Guide is designed to assist local councils in addressing the risks associated with heatwaves at a community level. Internationally, heatwave plans are commonly used to minimise the health impact of heatwaves.

In 2008, the Department of Human Services funded 13 pilot projects (involving 22 local councils) to undertake the process of developing and implementing heatwave plans into existing municipal plans, such as the Municipal Emergency Management Plan or the Municipal Public Health Plan. The department has also implemented a heat alert system to assist local councils and other key agencies to prepare for and respond to heatwaves at a local level. This experience has been used in developing the Heatwave Planning Guide.

Heatwave planning includes:

- identifying vulnerable population groups and the risks they face
- identifying and agreeing on effective strategies, agency coordination and response planning to address those risks
- implementing and activating the plan
- evaluating the plan after each summer season.

This guide provides local councils with:

- information about heatwaves and municipal planning
- guidance on how to develop a heatwave plan
- examples of stakeholders and partners to consider in the planning process
- actions recommended for local councils to implement
- advice on developing a communication strategy.

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

- ensuring health information and support is readily available to the community, vulnerable population groups and their carers
- increasing understanding of heatwave planning and management across council and key external stakeholders
- developing partnerships and collaborative arrangements to better respond to heatwaves
- increasing understanding of heatwaves in communities and increasing their capacity to respond during heatwaves
- managing emergencies during heatwaves more effectively
- developing long-term and sustainable behavioural change to minimise the impacts of heatwaves on health and wellbeing.

It is intended that this guide will not only be a resource for local councils, but will be of assistance to other organisations likely to be involved in responding to heatwaves in Victoria.



## Part 1: Background

### 1.1 Introduction

Climate change is expected to increase the frequency and intensity of heatwaves in Victoria. Evidence shows that heatwaves cause illness and death, particularly in vulnerable population groups.

In January 2009, Victoria experienced a prolonged statewide heatwave with temperatures among the highest ever recorded in the state. The report by the Office of the Chief Health Officer concluded that there were 374 additional deaths during the heatwave period in comparison to the previous five years.

The Heatwave Planning Guide is designed to assist local councils in addressing heatwaves at a community level. Internationally, heatwave plans are commonly used to minimise the health impact of heatwaves.

It supports the development and implementation of heatwave plans and emergency responses at a community and local government level in accordance with the human health action (3.4) in the whole-of-Victorian-Government policy *Our Environment Our Future Sustainability Action Statement 2006*.

The guide draws on the experience of 13 pilot projects, funded by the Department of Human Services in 2008 and involving 22 local councils, to undertake the development of a heatwave plan that could be implemented into existing municipal plans. It is further supported by the experience of the January 2009 heatwave, as well as international and national experience in heatwave planning.

Heatwave planning includes:

- identifying vulnerable population groups and the risks they face
- identifying and agreeing on effective strategies, agency coordination and response planning to address those risks
- implementing and activating the plan
- evaluating and updating the plan regularly.

Heatwave planning has a great deal in common with planning for other emergencies, and with planning for health and wellbeing.

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

- ensuring that health information and support is readily available to the community, vulnerable population groups and their carers
- increasing understanding of heatwave planning and management across council and key external stakeholders
- developing partnerships and collaborative arrangements to better respond to heatwaves
- increasing understanding of heatwaves in communities and increasing their capacity to respond during heatwaves
- managing emergencies during heatwaves more effectively
- developing long-term and sustainable behavioural change to minimise the impacts of heatwaves on health and wellbeing.



## 1.2 Guide outline

### The purpose of this guide

The purpose of this guide is to provide local councils with:

- guidance on the development of a heatwave plan
- assistance to incorporate heatwave plans into existing municipal plans.

The primary audience for this guide are those directly involved in health services and emergency management in policy, planning and practitioner roles in local government.

Local councils were identified in the *Our Environment Our Future Sustainability Action Statement 2006* as the most appropriate setting for heatwave planning because they:

- are the closest level of government to communities
- have knowledge about local demographics, as well as the human services in their districts
- manage a significant portion of community-based services
- have mandatory planning requirements with structured processes to support effective heatwave planning.

It is intended that this guide will not only be a resource for local councils, but will help other organisations, such as:

- hospitals
- schools
- employers
- Primary Care Partnerships
- community and health services
- Divisions of General Practice
- police, ambulance and other emergency services
- other non-government and government agencies.

### How to use this guide

This guide is presented in three parts:

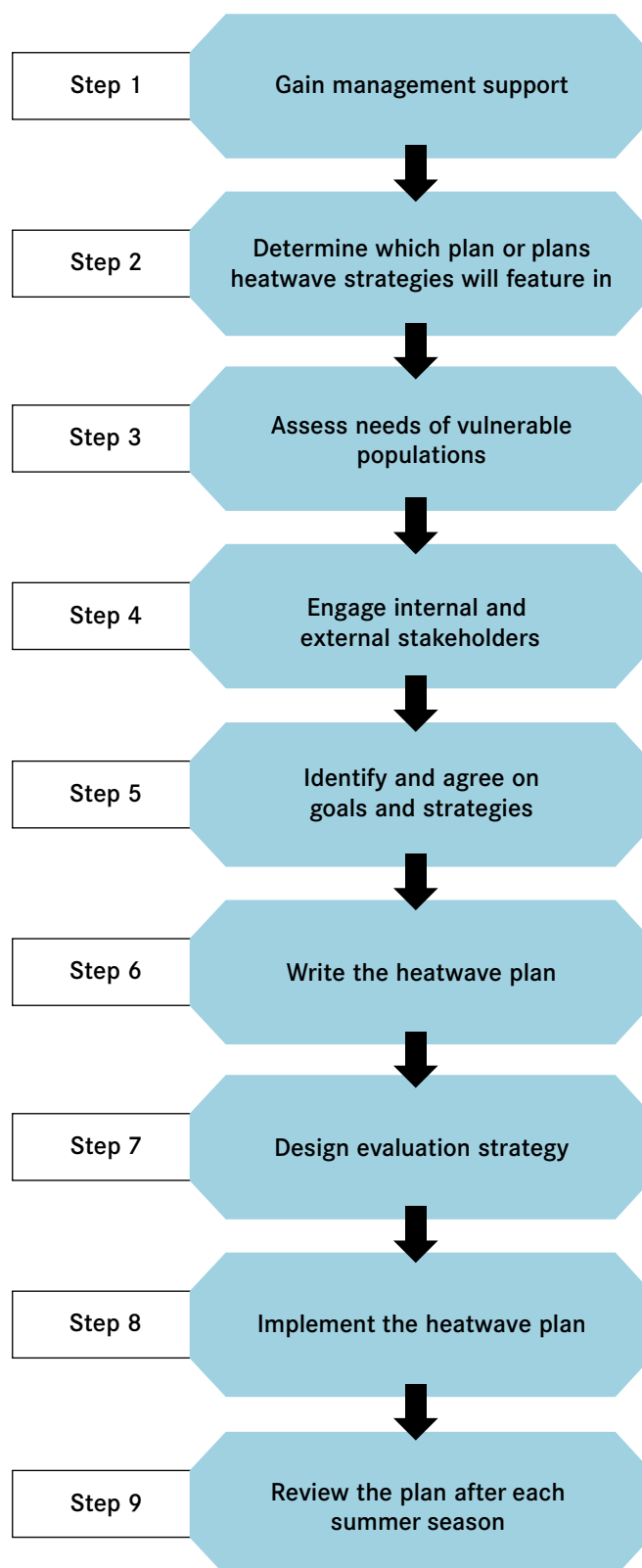
**Part 1: Background** – provides an introduction to the resource; the rationale for local government to develop a heatwave plan; and the existing municipal planning frameworks into which heatwave strategies might be incorporated.

**Part 2: Preparing a heatwave plan** – provides information, actions, tips and prompting questions to assist in the development of a heatwave plan using a recognised local government planning framework.

**Part 3: Communication strategy** – provides a range of tips, key messages and tools to assist in the communication of heatwave information to the community and key stakeholders.

This guide will work through the following heatwave planning steps:

**Figure 1: Steps to heatwave planning**



## 1.3 Understanding heatwaves

### Defining heatwaves

Clearly defining heatwaves is difficult; factors such as humidity, demographics, urban or rural design issues and acclimatisation mean that similar temperatures might have a different impact in different environments or communities. As a result, there is no single internationally accepted definition of a heatwave.

Heatwaves are typically described as a minimum temperature over a prescribed duration that is likely to impact on the health of a community.

### Heat threshold

In Victoria, heatwave plans are normally activated when temperatures are forecast that are likely to impact on the health of the community. These activation levels are also called 'thresholds'. The relationship between temperature and health is established using epidemiological studies and can vary between different population areas.

To date, the Department of Human Services has established a heatwave threshold for metropolitan Melbourne and regional Victorian areas. In these conditions, mortality rates in people aged 65 years and older might increase by 19–21%<sup>1</sup>.

There is no minimum duration for heatwaves in Victoria; they can be as short as a single day.

For example the January 2009 heatwave in Victoria was of unprecedented intensity and duration, with Melbourne experiencing three consecutive days of temperatures above 43°C and little overnight relief.

### Heat alert system

During the summer season, the department monitors the Bureau of Meteorology website and notifies departmental staff and local councils of impending heatwaves. The Bureau of Meteorology provides seven-day maximum and minimum temperature forecasts along with detailed descriptions for 29 areas in Victoria and seven-day maximum and minimum temperatures and brief descriptions for a further 51 areas.

This means that heatwaves can be predicted between one and seven days before the event. However, the heatwave may not occur if the forecast temperature changes and no longer reaches the threshold.

### Vulnerable population groups

Heatwaves are known to increase the incidence of illness and death, particularly among vulnerable population groups.

Vulnerable population groups include people with the following characteristics:

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

They also include people in the following circumstances:

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

<sup>1</sup> Nicholls, Skinner, Loughan and Tapper, 2008

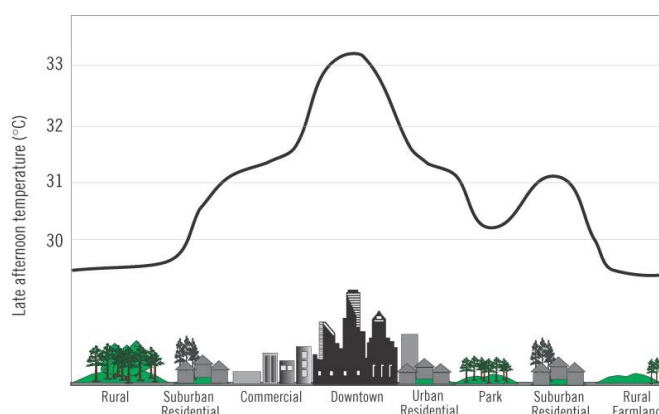
Key findings of the Chief Health Officer's report on the January 2009 Victorian heatwave were:

- a 25% increase in metropolitan Ambulance Victoria total emergency cases and a 46% increase over the three hottest days
- a 34-fold increase in 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 a 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 mortality.

## The impact of extreme heat

The 'heat island effect' is a compounding factor in urban and suburban areas because many common construction materials absorb and retain more of the sun's heat. The temperature difference is normally more pronounced at night than during the day.

**Figure 2: Effect of heat islands<sup>2</sup>**



Heatwaves rarely occur in isolation. Infrastructure stress and failure and other natural emergencies can compound stress on the community, economy and services. Power outages, for example, will impair people's ability to run air conditioners and refrigerate food. Likewise councils may be unable to access information stored electronically. This situation only compounds the stress of the community.

## Heat-related illness

Heat-related illness can occur when the body is unable to adequately cool itself. It can range from mild conditions such as a rash or cramps to very serious conditions such as heat stroke, which can kill people.

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

Heat exhaustion is a serious condition that can develop into heat stroke. Someone experiencing heat exhaustion may appear pale and sweating. They may have a rapid heart rate, muscle cramps, weakness, dizziness, headache, nausea, vomiting or fainting.

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

<sup>2</sup> <http://eetd.lbl.gov/HeatIsland/HighTemps/>



## 1.4 Heatwave planning in Australia and overseas

### International experience

Although heatwaves do not cause the same physical damage as other extreme weather events such as floods or storms, the death toll that often accompanies a heatwave is generally substantially higher<sup>3</sup>.

For example, heatwaves in the United States in 1980 were reportedly responsible for an estimated 1700 heat-related deaths<sup>4</sup>, while more than 80,000 additional deaths<sup>5</sup> occurred during the European heatwave of 2003.

The need to respond to heatwaves has resulted in the emergence of dedicated heatwave plans. Such plans usually include a series of activities that are put into effect in the time leading up to and during a heatwave.

Heatwave planning is evolving as the impact of extreme heat is better understood. Examples of heatwave planning in other countries are listed below:

#### United States of America

An article titled *Municipal Heatwave Response Plans*, published in the American Journal of Public Health reported in 2003 that 'while municipalities must be prepared for heatwaves, many at-risk cities had minimal or no heatwave response plans'. In more recent years this has improved, with more cities or states conducting heatwave planning. Examples include:

- *Extreme Weather Operations Plan* – Chicago, Illinois
- *Southwest Ohio Heat Watch/Warning System* – Dayton, Ohio
- *Contingency Plan for Excessive Heat Emergencies* – California
- *Hot Weather Health Watch/Warning System* – Philadelphia, Pennsylvania
- *Plan for Excessive Heat Conditions 2007* – Milwaukee, Wisconsin.

Each includes heat alert systems combined with planning and raising community awareness of heatwave hazards and strategies to respond to heatwaves. Activities undertaken ahead of a heatwave include:

- promoting 'buddying' systems
- coordinating service providers
- preparing cooling centres
- educating health professionals
- identifying vulnerable individuals
- targeting agencies (such as nursing homes) with large numbers of vulnerable individuals
- disseminating information
- working with the media
- checking building standards.

During a heatwave, strategies include:

- activating the 'heatline' telephone service
- opening cooling centres
- relocating people, if necessary
- extending service delivery and opening hours of services and facilities
- maintaining daily contact with certain people on a register
- managing utilities to ensure power, gas and water supplies
- delivering support to vulnerable individuals, including homeless people
- disseminating information
- increasing the number of medical and emergency service personnel on duty
- rescheduling outdoor events
- deploying extra tow trucks to help motorists in difficulty
- communicating with service providers.

<sup>3</sup> Smoyer-Tomic, Kuhn and Hidson, 2003

<sup>4</sup> Centers for Disease Control and Prevention, 1993

<sup>5</sup> European Commission, 2003

## Canada

In Toronto, Ontario, the *Hot Weather Response Plan* incorporates a two-tiered system of heat alert and extreme heat alert strategies.

In addition to the strategies in common with those detailed in the U.S. examples, the Toronto plan also includes the following:

- providing boarding homes with 'Hot Weather Protection Plan' packages
- checking drinking water fountains
- planning roles of different response agencies
- following up reviews and reports of heatwaves from the previous summer
- providing transport to cooling centres
- ceasing any disconnections of utilities to those who have not paid accounts
- providing hot weather safety messages for pet owners.

## England

Active heatwave planning occurs at a national level in England. A *Heatwave Plan for England – Protecting Health and Reducing Harm from Extreme Heat and Heatwaves* sets out what will happen before and during a severe heatwave.

The core elements of the plan are:

- A Heat-Health Watch system, based on Met Office forecasts, operates during the summer months and triggers levels of response from the Department of Health and other bodies.
- Advice and information are issued by the Department of Health directly to the public and to health and social care professionals – particularly those working with vulnerable population groups.
- Hospitals and nursing homes provide cool areas and monitor indoor temperatures to reduce the risk of heat-related illness and death in the vulnerable populations.
- Extra help may be available from health and social care services, the voluntary sector, families and others to care for those most vulnerable. This is determined locally and based on existing relationships between statutory and voluntary bodies.
- The media provides advice to people quickly, both before and during a heatwave.
- Long-term, multi-agency planning to adapt to and reduce the impact of climate change; this includes greening the built environment increasing energy efficiency and improving shading around and insulation of buildings.

## World Health Organisation

The World Health Organisation recommends a set of general principles and core elements of Heat-Health Action Plans that can inform the dimensions of heatwave prevention, preparation, response and recovery.

The core elements of heat-health action plans include:

- agreement on a lead body
- accurate and timely alert systems
- a heat-related health information plan
- a reduction in indoor heat exposure
- particular care for vulnerable population groups
- preparedness of the health and social care system
- long-term urban planning
- real-time surveillance and evaluation.

The World Health Organisation has also published a resource: *Improving public health responses to extreme weather/heatwaves – EuroHEAT*.

## Australian experience

Heatwave planning is only just beginning in most Australian States and Territories, with most activity outside Victoria to date being in Queensland and New South Wales. Both states have a two-tiered alert system, although they are quite different in scope and detail.

The heatwave response planning framework developed in Queensland focuses on emergency services. The *Queensland Heatwave Response Plan* comes under Queensland Health, which coordinates multiple agency responses and provides communication strategies to inform health care professionals, carers and the community.

The plan focuses on working with the media to provide information to the general public, having designated roles for ambulance and other emergency services and encouraging utility agencies not to terminate services to anyone during a heatwave.

In the Central Coast area of New South Wales, a pilot project was conducted in 2007. The resultant *New South Wales Central Coast Pilot Plan* promotes prevention strategies. Once activated, the plan details media activity to provide heatwave information to the general public. The Division of General Practice is also advised, with the aim of general practitioners then distributing heatwave pamphlets and information to their patients.



## Victoria

*Our 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
- 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
- funded 13 pilot projects (involving 22 local councils) to undertake the process of developing and implementing heatwave plans into existing municipal plans in 2008
- developed this guide to support heatwave planning in local councils.

A description of the pilot projects is available on the department's website at <http://www.health.vic.gov.au/environment/climate/heatwave.htm>. Some specific heatwave plans developed by the pilot projects include:

- City of Greater Bendigo Heatwave Implementation Plan
- City of Melbourne Heatwave Response Actions
- City of Wodonga Heatwave Plan
- Hobsons Bay City Council Local Heatwave Response Plan
- Southern Grampians and Glenelg Heatwave Strategy
- Latrobe City Council Heatwave Strategy Community Education Plan.

Other outcomes from the heatwave pilot projects are listed below:

- Baw Baw Shire Heatwave Vulnerability Study
- City of Whitehorse – integration strategy for heatwave prevention, preparation, response and recovery across several key interrelated council action areas
- Yarra City Council Environments for Health Heatwave Framework
- Hume City Council – key heatwave messages for residents, and identification of the characteristics of an effective heatwave response strategy
- Western Port Greenhouse Alliance – identification of organisational factors needed to ensure an effective response to heatwave for its local council members
- Wimmera Primary Care Partnership – identification of vulnerable population groups, and key stakeholder consultation for its local councils
- Cities of Stonnington and Port Phillip Heatwave Adaptation Project – identification of heatwave policies and strategies concerning young people and people with insecure housing.

The department will consolidate the work to date and incorporate learnings from the January 2009 heatwave to develop a State Heatwave Plan. The plan will follow the principles in this guide and formalise the department's actions for responding to heatwaves.



1.5 Local government planning frameworks

Planning methods

Both emergency management and health and wellbeing planning have established planning methodologies.

These methodologies have areas of overlap and areas of difference, with strengths and weaknesses in the local government context. A matrix depicting how heatwave planning relates to emergency management and health and wellbeing planning is in appendix 1.

Emergency management planning in local government

The *Emergency Management Act 1986* requires each local council to:

- develop and maintain a municipal emergency management plan (MEMP)
- make specific appointments of municipal emergency officers to ensure the provision of municipal resources in emergencies and recovery
- appoint a planning committee that must follow planning guidelines issued by the Minister for Police and Emergency Services.

Generally, emergency management has traditionally been concerned with:

Preparedness:	Planning and raising community awareness of hazards
Prevention:	Eliminating or reducing the incidence or severity of emergencies and the mitigation of their effects
Response:	Responding to emergencies and providing rescue and immediate relief services
Recovery:	Assisting people and communities affected by emergencies to achieve a proper and effective level of functioning.

Planning models used in emergency management maintain a risk assessment methodology with a clear goal of removing the risk or reducing its likelihood or consequences, based on Standards Australia SAA HB436–2004 and Australian/New Zealand Standard AS/NZS 4360:2004.

The Community Emergency Risk Management model, for example, aims to reduce risks within a community by:

- identifying the risks that a community faces
- assessing the vulnerability of the community to those risks
- providing options to reduce or eliminate the risks.

It has been specially designed for local councils and is presented with three distinct manageable phases as depicted opposite.

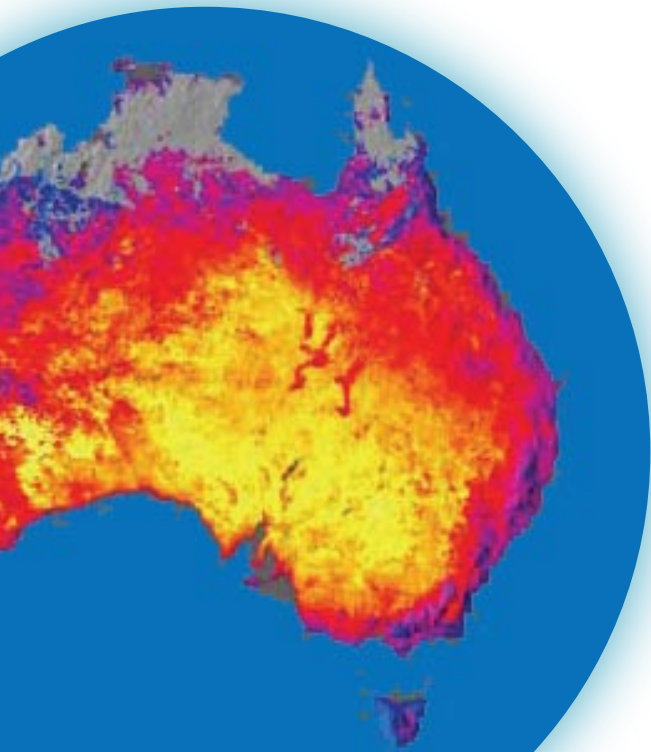
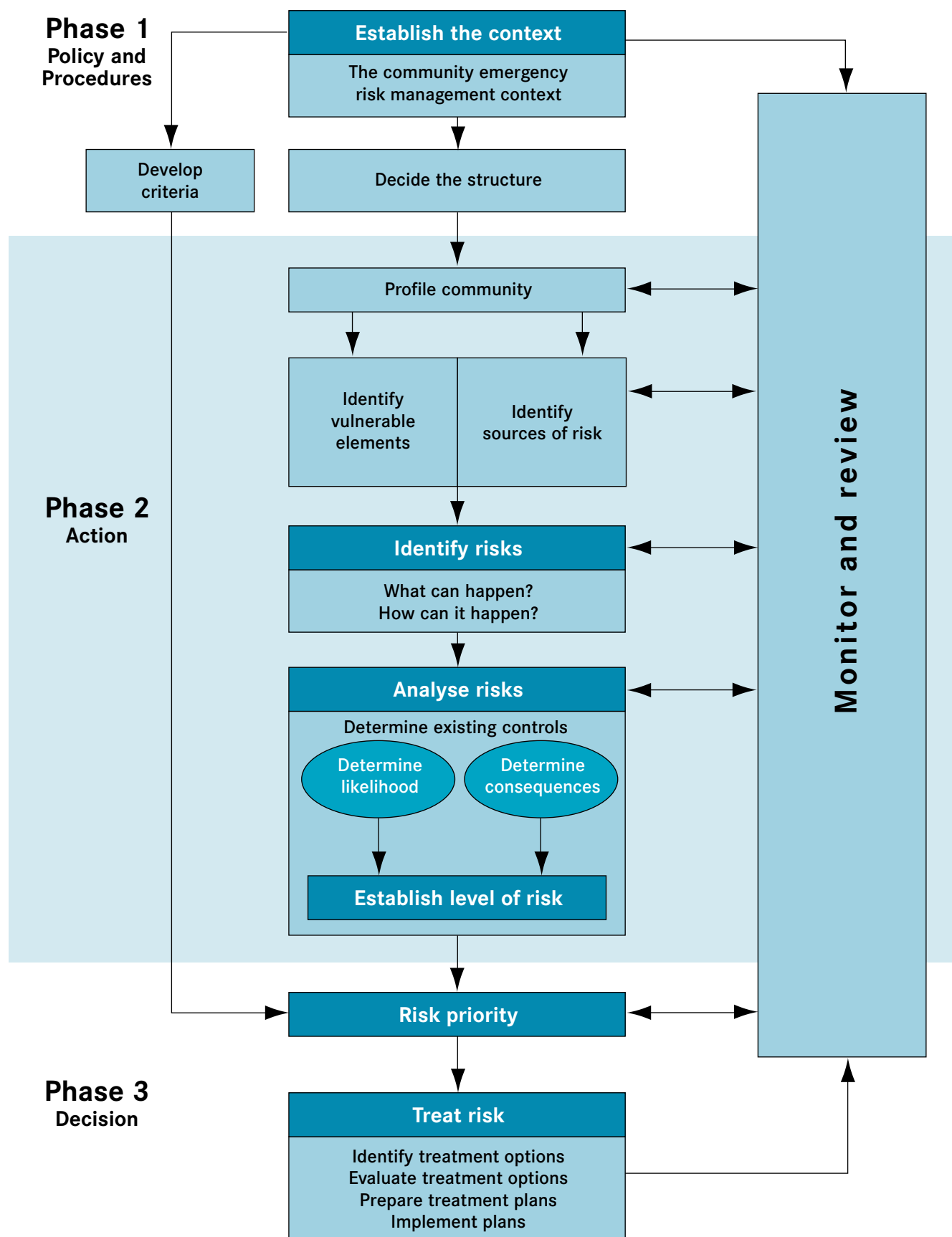


Figure 3: Community Emergency Risk Management Model<sup>6</sup><sup>6</sup> SES Victoria (<http://www.ses.vic.gov.au/>)

The Integrated Community Safety and Emergency Operations Planning Model<sup>7</sup> (below) was promoted to local councils as a means of responding to community safety in an integrated way.

The model takes a whole-of-community outlook but draws in specialists, such as ‘public health’ and ‘isolated elderly’ (as a population group focus). This is seen as a practical approach, enabling both responsiveness to the legislative and/or funding requirements of state government and being capable of contributing to key objectives as an element of municipal core business.

Figure 4: Integrated Community Safety and Emergency Operations Planning Model<sup>8</sup>



### Health and wellbeing planning in local government

The *Public Health and Wellbeing Act 2008* requires local councils to produce a Municipal Public Health Plan (MPHP) that:

- includes an examination of data about health status and health determinants in the municipality
- identifies goals and strategies based on available evidence for creating a local community in which people can achieve maximum health and wellbeing
- provides for the involvement of people in the local community in the development, implementation and evaluation of the plan
- specifies how council will work in partnership with the Department of Human Services and other agencies undertaking public health initiatives
- is consistent with the Council Plan, Municipal Strategic Statement and the State Public Health and Wellbeing Plan.

To assist with developing the MPHP, the Department of Human Services developed a guidance document in 2001. *Environments for Health: A Framework for municipal public health planning* is designed to support greater planning consistency among local councils. By considering issues and taking action based on ‘the four environments for health’:

<b>Built:</b>	Altering physical surroundings: includes urban layout, building design, housing density, parks and recreation facilities, roads, paths and transport and the provision of other amenities, such as seating and toilets.
<b>Social:</b>	Creating opportunities for people to participate in the life of the community: includes providing a sense of place, belonging and safety, information, informal social support, health and community services, arts and culture, sport and recreation.
<b>Natural:</b>	Looking after natural surroundings and ecosystems: includes clean water, air, soil, natural heritage, land care, waste recycling, energy consumption and climate control.
<b>Economic:</b>	Encouraging sustainable economic development and equitable access to resources: includes job creation, training, mentoring, subsidies and incentives.

An evaluation of *Environments for Health* in 2006 reported that Victoria is demonstrating best practice, nationally and internationally, in local health and wellbeing planning. The evaluation identified that a range of other state government areas including emergency management have adopted the framework.

The four-year cycle of planning for Municipal Public Health Plans encourages an iterative development that takes advantage of a longer-term outlook and the learning derived from repeated processes.

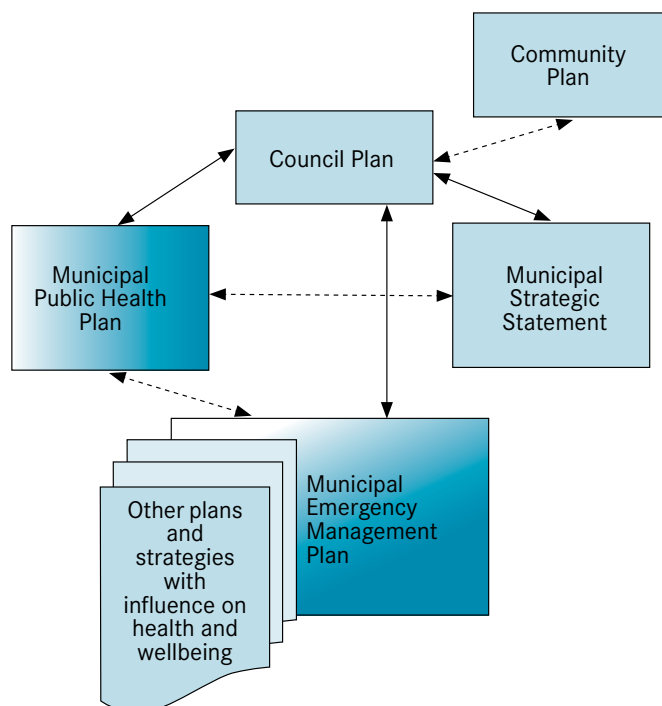
<sup>7</sup> Office of Emergency Services Commissioner, 2001  
<sup>8</sup> Gabriel, 2003. *The Australian Journal of Emergency Management*, Vol. 18 No 2. May 2003

Figure 5: Municipal Public Health Planning<sup>9</sup>

### Integrated planning

Municipal Public Health Plans are one of three major council documents. They reflect the broad direction of a local council expressed in the Council Plan and influence the plans and strategies that express action concerning life stages, other population groups or specific determinants. In recent years the emergence of community plans has added another layer to this. As depicted in the diagram below, these long-term plans express a long-term vision for the community, with potential implications for all council planning.

Integrated planning can be defined as working collaboratively with others to identify shared or overlapping goals and identifying complementary action to achieve these goals. 'Others' might include the community itself, the community sector, the private sector and government agencies (from the three tiers of government).

Figure 6: Council planning hierarchy<sup>10</sup>

<sup>9</sup> Adapted from *Environments for health: municipal public health planning framework*, Victorian Department of Human Services, 2001

<sup>10</sup> Adapted from *Environments for health: municipal public health planning framework*, Victorian Department of Human Services, 2001

The following principles have been developed concerning integrated planning for health and wellbeing:

**Table 1: Principles of integrated planning<sup>11</sup>**

Principle	This means council will:
<b>Identify areas for action using the four environments for health</b>	Take into consideration the built, social, economic and natural environments in identifying issues and determining appropriate strategies.
<b>Ask questions using the best available information to understand the issues</b>	Research available data and seek the advice of experts on local health outcomes, patterns of behaviour, service needs and opportunities. This is compared with relevant regional, state and national trends.
<b>Listen to the community</b>	Encourage people to have a say and be heard: both their concerns and their solutions. Actions are meaningful to the local community, attract local participation and are locally driven.
<b>Reduce the risks of health and wellbeing inequality</b>	Ensure that vulnerable population groups in the community are specifically supported to avoid the risks and minimise harm.
<b>Choose action based on what is most likely to work</b>	Evaluate what has been tried in the past and research what others have done so that action is based on evidence and more likely to provide achievable and measurable outcomes.
<b>Work in partnership with communities, the private sector, the community sector and other tiers of government</b>	Actively engage partners across a broad range of sectors – remembering that using the four environments means many might not be traditional health partners. Partnership reduces duplication and maximises effort.
<b>Build capacity across the community</b>	Use information, skill development, support and advocacy to increase the capacity of individuals and community partners to contribute to solutions.

## Other trends in planning in local government

Planning in local government has seen a number of trends recently that have influenced best practice, including community strengthening and engagement.

People being connected to others in neighbourhoods, communities and society (referred to as ‘social capital’) has focused attention on the capacity of community members and local networks.

Communities high in social capital are high in resilience and self-reliance and more active in dealing with local needs and issues. This has led to an investment in community strengthening or community capacity building.

Community strengthening involves the active creation of sustainable networks and partnerships of local stakeholders and community members to achieve agreed outcomes through mechanisms such as integrated planning, collaboration and skill development.

Successful community strengthening helps to create stronger social and civic institutions, improved wellbeing and increased social and economic opportunities.

<sup>11</sup> Adapted from *Local Government reducing harm from alcohol consumption* Australian Drug Foundation, 2007



## 1.6 Stakeholder roles and responsibilities

### Victorian government

The Victorian Government provides legislative frameworks that incorporate heatwave issues. These include:

- the *Emergency Management Act 1986*
- the *Planning and Environmental Act 1986*
- the *Public Health and Wellbeing Act 2008*
- the provision of consistent statewide policy and regulation.

Before and during a heatwave, the Department of Human Services will:

- monitor the Bureau of Meteorology website for impending heatwaves
- provide heat alerts to local councils and departmental staff
- provide key health messages to the media and local councils
- provide communication material with key health messages
- evaluate actions taken during heatwaves
- update the State Heatwave Plan regularly.

The Victorian Government, through the Office of Senior Victorians, is providing funding for the establishment of community registers, located primarily at police stations. Volunteers will telephone those electing to be on the registers to check on their well being.

### Local government

Local councils are responsible for:

- developing and implementing Municipal Emergency Management Plans
- developing and implementing Municipal Public Health Plans
- developing and implementing Council and/or Community Plans
- developing and implementing Municipal Strategic Statements
- maximising the responsiveness of council infrastructure and amenities
- regulating planning, including building standards and land use planning schemes.

Before, during and after a heatwave, local councils should:

- ensure that their heatwave plan is implemented and adopted by council
- nominate two contacts to receive heat alerts from the department
- monitor the Bureau of Meteorology website for impending heatwaves
- activate their heatwave plan when necessary
- evaluate the actions taken during heatwaves at the end of each summer season
- update the heatwave plan regularly.

Note: State and local governments are responsible for adhering to the Victorian Charter of *Human Rights and Responsibilities Act 2006*.







## Part 2: Preparing a heatwave plan

### 2.1 Introduction

Current practice in local government planning in Victoria reflects the diversity of local councils in terms of size, economy, geography, demographics and organisational culture. This means that ‘one size does not fit all’.

The guide is structured around the recognised planning cycle used by many local councils in producing plans and strategies to meet their legislative requirements. The stages in the planning cycle (figure 5) are section headings in this part and include:

- pre-planning
- municipal scan
- partnership development
- implementation
- evaluation

Please note that throughout this guide, the term ‘council heatwave plan’ is used to describe the product of the local council’s heatwave planning process. This will likely be compiled into a single document, with particular actions featured in a number of existing municipal plans and strategies.

### 2.2 Pre-planning

#### Mandate and leadership

■ **Tip:** Ensure that the person leading the heatwave planning process and senior management are committed to completing the heatwave planning process in its entirety.

Successfully developing and implementing the heatwave plan relies on ‘champions’ and ‘alliances’ within local councils able to drive change. These might be developed by:

- seeking and obtaining endorsement of and/or participation in the heatwave planning process by the chief executive officer and senior management
- appointing a steering group containing senior representatives from the local council and external agencies to oversee the planning process
- presenting compelling data and information to make heatwaves relevant to the respective people.

Examples of steering group members include:

- an elected member of council
- the manager of Community Care Services
- the manager of Emergency Response
- the manager of the Primary Care Partnership
- the officer in charge of the local Ambulance Service
- the officer in charge of the local Police Service
- the managers of relevant community organisations.



■ **Pilot example:** The Mayor of Wodonga City Council opened a heatwave community consultation forum. This forum and subsequent consultation involved local council staff, as well as participants from Rural Ambulance Victoria, St John Ambulance, Red Cross, North East Greenhouse Alliance, Regional and Community Health Services, Upper Murray Family Care, Border Division of General Practice, Rural Housing Network, childcare centres and playgroups, Age Concern Albury Wodonga, Senior Citizens Association, Aged accommodation, Wodonga pharmacies and the Gateway Tourist Information Centre.

## Stakeholders

Stakeholders include internal and external organisations and individuals with an interest in heatwaves and vulnerable population groups. The interest may already exist, which makes engaging the stakeholders ‘easier’. However, valuable stakeholders might not yet be committed to participating in or supporting heatwave planning. Local councils will need to engage these stakeholders strategically to generate interest by appealing to their motivators or drivers.

■ **Tip:** Because of competing priorities, generate an interest in heatwaves by appealing to the motivators or drivers of stakeholders.

Externally, a number of organisations and individuals have an interest in the heatwaves. A list of potential stakeholders in heatwave planning is in appendix 2. These include:

- community organisations and service providers
- private sector businesses
- government departments
- government agencies and utility providers
- neighbouring local councils
- community members.

■ **Pilot example:** The City of Greater Bendigo engaged the Bendigo Welfare Agencies Network, Bendigo Neighbourhood House Network, Primary Care Partnership, Victoria Police, Rural Ambulance Victoria, Bendigo Health, Bendigo Community Health, McIvor Health Service, Department of Human Services and council staff on the Heatwave Advisory Group; they used this group to identify other stakeholders for broader consultation.

Determining the stakeholders involved in developing the heatwave plan will include:

- identifying individuals and organisations affected by heatwaves
- qualifying and quantifying the level and nature of their interest
- engaging and exploring options for their inclusion in the planning process
- gaining commitment to and formalisation of roles and responsibilities within the heatwave plan.

■ **Tip:** Approach heatwave as a regional issue and formalise participation of a range of key stakeholders in the planning process.

## Integrating the plan

As detailed in part 1, a number of existing municipal plans could include heatwaves. The probability is that heatwaves will feature in more than one plan or strategy. Whichever plans are identified, senior management and those responsible for the relevant plans and strategies need to agree to incorporating heatwaves into the plans.

■ **Tip:** Look for synergies with existing plans and strategies, as many of the desired actions might be reflected in them.

Ideally, a heatwave plan would be included in the Council Plan, the Municipal Strategic Statement (MSS), the Municipal Public Health Plan (MPHP) and the Municipal Emergency Management Plan (MEMP). These plans have legislative compliance requirements, resource allocations and audit requirements that secure the topic on the council planning agenda.

In addition, there are a number of other plans and strategies where heatwave might feature. Some of these include:

- whole-of-council plans, such as a risk management plan
- population group strategies, such as a positive ageing strategy, a Koori strategy, a disability strategy, an early years strategy, a cultural diversity strategy or an inclusion strategy
- geographic plans, such as small town plans in rural areas
- areas overseen by specific groups, such as a community safety plan implemented by the community safety committee.

■ **Pilot examples:** Integrating the heatwave plan into existing municipal plans may be difficult for staff to access, read or utilise. Councils may consider compiling all the strategies into one document that identifies the municipal plans into which the strategies are integrated. This may assist in the review process as well as ensuring staff are familiar with the entire plan. The heatwave plan may feature in many plans – for example:

- The City of Melbourne heatwave plan is linked to the Municipal Emergency Management Plan and the Council Plan 2009–2013.
- At Hobsons Bay City Council, the heatwave plan is incorporated into the Environment Strategy, the Greenhouse Action Plan and the Aged Strategy.
- At Port Phillip City Council, heatwave considerations are included in the shade policy.

In order to determine where heatwave best fits within council's overall planning framework, a number of issues need to be considered. These include:

- the other council plans and planning frameworks into which the heatwave plan can be integrated
- requirements to comply with any prescribed council planning frameworks
- the council business units required to develop and implement the heatwave plan
- frameworks used by other stakeholders involved in the planning process.

■ **Pilot example:** The Wodonga City Council Heatwave Strategy was endorsed as a sub-plan of the Municipal Emergency Management Plan. This approach is consistent with other sub-plans in the MEMP such as the Influenza Pandemic Plan.

Additionally, the plans and strategies of key stakeholders outside local councils where the heatwave plan aligns need to be identified. The appropriate organisations should be consulted and engaged in the development of the council heatwave plan. They can update their plan to reflect the council plan.

## External influences

There are legislative requirements, protocols and initiatives of the Victorian and Australian governments and other organisations that need to be considered in the development of the heatwave plan, including:

- changes in the roles, responsibilities and powers of police, fire and ambulance services if a state of emergency is declared

- use and management of the power grid by electricity suppliers
- powers of water authorities to restrict water use

Engaging such agencies in heatwave planning assists in understanding the roles and responsibilities of key agencies and enables the outcomes of the council heatwave plan to be maximised.

## Coordination

Given the growing importance of heatwaves and the need for integration of heatwave actions across a range of council plans and strategies, the development of a heatwave plan requires a project management approach.

Project management involves planning and managing the planning process so that activities are coordinated and mapped out; this will allow the required timeframes to be met and the final products to be completed for inclusion into the relevant plans and strategies.

As heatwave events occur during the summer months, timelines for heatwave planning are fairly prescribed. That is, in order to successfully implement strategies for heatwave events in summer, planning will need to occur during the winter months. Unfortunately, engaging stakeholders during the winter months can present challenges.

However, producing a project plan to undertake the heatwave plan should make it easier to engage stakeholders and ensure a timely, efficient and effective planning process for council and other relevant stakeholders.

■ **Tip:** Develop and follow a flexible project plan outlining strategies, key activities and timelines.

## Business continuity

Since heatwaves rarely occur in isolation local councils should think about the consequences of extreme heat events. Situations that may arise during heatwaves include power outages, public transportation cancellations and bushfires.

Power outages may impact on the local council's ability to maintain adequate staffing, deliver services, access information stored electronically or provide communication. Responding to bushfires will demand additional resources that may have otherwise been allocated to responding to heatwaves.

Part of the heatwave plan should identify and address the risks associated with the consequences of heatwaves not only to the community but to council business.

## Evaluation

An evaluation strategy should be developed in the pre-planning phase, but will be part of the ongoing planning process. The strategy will help clarify heatwave strategies, determine indicators within the heatwave plan and ensure data or information required is collected.

Heatwave plans will most likely be evaluated on whether the plan was implemented as expected. It is difficult to evaluate the heatwave plan based on outcomes because morbidity and mortality data is difficult to get and to compare.

The evaluation strategy should have clear objectives and answer:

- What is being evaluated?
- Why is it being evaluated?
- How is it being evaluated?

- When will the evaluation occur and how often?
- Where or how will the results of the evaluation be used?
- Who will conduct and participate in the evaluation?

There are various methods of evaluating the heatwave plan, including a quantitative assessment based on statistics, data and information collected or a qualitative assessment using methods such as interviews and consultation with key stakeholders. A combination of these methods will likely provide the most information.

The evaluation strategy also needs to consider the timeframes for gathering and using the information and data.

Once developed, the evaluation strategy needs to be communicated to all relevant stakeholders to understand the objectives and expectations.

Desirable position at the end of the pre-planning phase of the planning cycle:

Action area	Outcome
<b>Mandate and leadership</b>	<ul style="list-style-type: none"> <li>• Endorsement, commitment and involvement by the chief executive officer and the managers of Community Services and Emergency Response.</li> <li>• Leaders and influencers in council and from other key stakeholders are actively involved in the heatwave planning process.</li> <li>• Appointment of a steering group containing high-level representatives from council and external organisations.</li> </ul>
<b>Stakeholders</b>	<ul style="list-style-type: none"> <li>• All key stakeholders are identified along with the type and level of interest they have in heatwaves.</li> <li>• Key stakeholders are identified, engaged and used in the development of the heatwave plan.</li> </ul>
<b>Integrating the plan</b>	<ul style="list-style-type: none"> <li>• Agreement is obtained from council's senior management group to incorporate heatwave into the Council Plan, the Municipal Public Health Plan and the Municipal Emergency Management Plan.</li> <li>• The other likely plans and strategies where heatwave needs to be incorporated are identified.</li> <li>• The relevant people and business units responsible for these plans and strategies are committed to the inclusion of heatwave within them.</li> <li>• Plans and strategies of key stakeholders outside local councils where the heatwave plan might align have been identified and the appropriate organisations are willing to work together to develop these plans.</li> </ul>
<b>External influences</b>	<ul style="list-style-type: none"> <li>• All relevant state and other protocols and practices that might influence the heatwave plan have been identified and the implications for council have been determined and planned accordingly.</li> <li>• Other stakeholder structures, such as drought committees and population group networks, have been identified and actions to align plans have been agreed.</li> </ul>
<b>Coordination</b>	<ul style="list-style-type: none"> <li>• A coordinated heatwave planning process and timeframe is determined and endorsed by council's senior management.</li> <li>• A project management plan to complete the heatwave plan is prepared and implemented.</li> </ul>
<b>Business continuity</b>	<ul style="list-style-type: none"> <li>• Develop contingency plan to address potential impacts of heatwaves on council business.</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• The evaluation strategy for the heatwave plan has been developed and implemented so that it commences at the implementation of the council heatwave plan.</li> <li>• Clear evaluation and monitoring objectives and processes have been defined.</li> <li>• The evaluation strategy has been communicated to all relevant stakeholders.</li> </ul>

## 2.3 Municipal scan

The process of collecting information and building a community profile will help to:

- assess the current assets and capacity of the community and community infrastructure
- identify areas where further capacity needs to be developed.

### Needs analysis

Vulnerable population groups (as discussed in section 1.3) should be identified and addressed in the heatwave planning processes.

Each local council will have a different combination of vulnerable population groups and the variations between rural and metropolitan conditions also need to be considered.

■ **Pilot example:** The City of Melbourne heatwave pilot project included international students, homeless people, high-rise residents and outdoor event patrons as vulnerable population groups. In rural areas other issues such as people living in tents or caravans might need to be considered.

The Australian Bureau of Statistics and the Municipal Association of Victoria have online databases to assist local councils in reviewing the demographic profile to determine how prevalent the groups are in the community. In addition, data such as burden of disease statistics and other information from sources such as the Victorian Council of Social Service might also be useful.

■ **Tip:** Conduct a risk assessment of who is at risk during a heatwave event. Determine what control measures or strategies are in place, what needs to be reviewed and what needs to be developed.

Many of the actions developed and implemented from the heatwave plan might also benefit the whole community.

### Research, data and information

The municipal scanning process should build a profile of the municipality that informs the development of the heatwave plan. The scanning process is likely to include:

- literature research
- data collection and analysis
- community and stakeholder consultation
- internal council consultation.

Literature is available from around Australia and overseas relating to climate change, heatwaves and the impact of extreme heat on people, particularly vulnerable population groups.

Some examples of literature that might be useful are listed on page 32. Additionally, a recent literature search conducted by Monash University is available on the department's website at [www.health.vic.gov.au](http://www.health.vic.gov.au).

In many cases, councils will have information from previous consultations and planning processes that can be used in the development of the heatwave plan.

■ **Tip:** Get authoritative data from the Department of Human Services, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Bureau of Meteorology or the World Health Organisation as it is instantly credible and difficult to dispute.

Data might be collected or sourced to inform the heatwave plan, including:

- demographic information
- house-occupancy data
- burden of disease data
- weather records
- local council asset registers.

■ **Pilot example:** The Wimmera Primary Care Partnership heatwave pilot project found that in some rural areas only one in eight houses was occupied and that the occupant was often an elderly person.

This might also be an opportunity to involve partners and build ownership of the plan. For example, Home and Community Care organisations might deliver a questionnaire or collect information from clients as part of the information-gathering process.

■ **Pilot examples:** Other examples of municipal scanning activities undertaken by the heatwave pilot projects include:

- undertaking a general community survey
- conducting a community and service provider forum followed up with a survey
- performing a building audit and mapping potential cooling centres.



Gathering information includes identifying assets and opportunities – not just acknowledging deficits or needs. The four environments for health can be used to map the built, social, economic and natural assets and infrastructure that may be beneficial during a heatwave. This was discussed earlier in section 1.5.

## Community and stakeholder consultation

The community consultation process can significantly inform the heatwave plan, raise awareness about heatwaves and build community and stakeholder ownership of the planned actions.

Community and stakeholder consultation might require creative thinking about how to effectively engage each group, what information is required from each stakeholder and what role the stakeholder is expected to have in the planning process.

■ **Tip:** Engage stakeholder and community members that represent vulnerable population groups and their carers.

Identifying stakeholders will most likely occur in the pre-planning phase (section 2.2); a list of potential stakeholders is in appendix 2. However, during this process, it is important to ensure that associated stakeholders are also included. That is, while babies and young children might be vulnerable, the heatwave plan needs to incorporate actions involving parents and carers who will support the plan.

■ **Pilot example:** The Wodonga City Council involved Home and Community Care workers in the development of a heatwave plan that includes a strong focus on carer education, training and support.

The consultation process may be a way of gathering information to support the municipal scan. Surveys and discussions that occur during this process may provide insight.

■ **Tip:** Consult with community members and stakeholders using methods aligned with the heatwave project's intended outcomes to answer these questions:

- What do stakeholders already do or know about heatwaves?
- What is missing from their current actions or thinking?
- What is important for stakeholders to know or do about heatwaves?
- What can the stakeholders practically do?

## Planning frameworks

In parallel with the municipal scan activities, consideration also needs to be given to the planning framework or frameworks to be used in the presentation and documentation of the heatwave plan. This was discussed earlier in section 1.5.

This is important as it then enables the municipal scanning process to be mapped against the planning framework(s).

Desirable position at the end of the municipal scanning phase of the planning cycle:

Action area	Outcome
Needs analysis	<ul style="list-style-type: none"> <li>• The vulnerable population groups to be included in the heatwave plan have been identified and the relevant characteristics have been determined.</li> </ul>
Research, data and information	<ul style="list-style-type: none"> <li>• All research into heatwave locally, nationally and internationally has been completed and the relevant data and information to contribute to the heatwave plan has been analysed and incorporated into the planning process.</li> <li>• All built, social, economic and natural assets and infrastructure relevant to heatwave have been mapped.</li> </ul>
Community and stakeholder consultation	<ul style="list-style-type: none"> <li>• The information needed from stakeholders in the consultation process has been determined.</li> <li>• All relevant stakeholders and potential partners have been effectively engaged in the consultation process and the development of the heatwave plan.</li> </ul>
Planning frameworks	<ul style="list-style-type: none"> <li>• An appropriate planning framework has been chosen and the heatwave planning issues have been mapped against that framework.</li> </ul>

## 2.4 Partnership development

Heatwave planning requires inter-agency and cross-sector cooperation because it affects more than one sector or group. Working-together models in municipal planning processes:

- focus on people, places and results rather than program boundaries, inputs and outputs
- recognise the value of local information, networks and leadership
- respect local priority-setting and resource allocation.

### Partnership options

Heatwave planning relies on partnership development to gain commitment and participation in the heatwave planning process and support communication or outreach to vulnerable population groups.

■ **Tip:** Research existing community-based interventions and then build partnerships with targeted key stakeholders.

Partnerships can be approached in a number of ways depending on the size and scope of the task and the nature of existing relationships. Initiating a partnership can mean convincing others to commit their time and resources. It is important, therefore, to approach decision-makers or influencers by appealing to their motivators and drivers.

There are few local council departments that do not have a part to play, from a vulnerable population group focus through to various planning roles. Externally, the partnership list is long (see appendix 2), including all manner of community and population group organisations and health agencies.

■ **Pilot examples:** Some partnerships initiated by the heatwave pilot projects include:

- Engage a volunteer program to reach out to neighbours during heatwaves.
- Work with 'meals on wheels' services resulted in them including heatwave and house cooling information into the 'in case of emergency' pockets they put on customers' fridges.
- Develop partnerships to assist vulnerable population groups during a heatwave to borrow or hire equipment such as mobile air-conditioners.
- Work with pool operators to extend pool hours.

### Goals and objectives

In order to be effective, a partnership needs to have a clear vision and set of goals that are communicated and understood by all parties. In the context of heatwave, this means working to improve the circumstances of the community and specific vulnerable population groups before, during and after heatwave events.

The overall vision and goals should be reflected in the heatwave-related plans and strategies of the local council and those of partner organisations. The objectives need to be measurable, to evaluate whether the partnership has achieved its desired outcomes.

Council cannot (and should not) be the provider of everything. Partnership arrangements can have a major multiplying effect in the services and support available to a community.

■ **Tip:** Council can achieve results as a community facilitator and through partnerships, where such outcomes may not be realistic with council as the provider.

### Partnership negotiations and operations

Some partnerships should be formalised, with the expectations and agreements between the parties documented. Such agreements should have timeframes and be regularly reviewed to ensure that the results are effective and acceptable.

Formalisation of arrangements might occur through documented partnership and service agreements, exchanges of letters and commitment to participate in committees and networks established to address heatwaves.

■ **Pilot example:** Hobsons Bay City Council developed a formalised memorandum of understanding (MOU) with Australian Red Cross to make daily contact with people registered on a 'vulnerability list' once a heat alert was issued. The MOU included daily reporting back to the nominated council representative.

## Helping other organisations to plan for heatwaves

Developing partnerships helps build a capacity within the community and other stakeholders to identify needs and develop and implement appropriate responses. While local councils have a key coordination and facilitation role in heatwaves, they are one of a number of contributors to minimising the impact of heatwaves on the community and, in particular, vulnerable population groups.

The local council should identify other organisations that might be developing their own heatwave plans. In this way council can contribute to greater community capacity and resilience in addressing heatwaves by providing input into the plans of other stakeholders.

Such involvement should also add to the capacity of the council heatwave plan through integration with other stakeholder plans.

Desirable position at the end of the partnership development phase of the planning cycle:

Action area	Outcome
Partnership options	<ul style="list-style-type: none"> <li>Current and new partners, including neighbouring local councils, are identified and partnership options are explored.</li> </ul>
Goals and objectives	<ul style="list-style-type: none"> <li>Clear and measurable partnership objectives are developed.</li> </ul>
Partnership negotiations and operations	<ul style="list-style-type: none"> <li>Partnership arrangements are documented and agreed.</li> </ul>
Helping other organisations to plan for heatwaves	<ul style="list-style-type: none"> <li>Council has identified and worked with other organisations that might be affected by heatwave events, and has contributed to the quality of their planning processes and the final plans and strategies developed.</li> <li>Council has aligned the heatwave planning process and the heatwave plan to those of other relevant organisations.</li> </ul>

## 2.5 Implementation

### Raising heatwave awareness and capacity to manage

The development of operational and service plans should include an action planning component and include objectives that are monitored and reviewed on a regular basis. Objectives should be specific, measurable, achievable, relevant and time-framed.

■ **Tip:** Develop an operational plan based on the longevity and severity of the heatwave so that all responsible persons and work areas understand their role during a heatwave event.

In order to develop the action planning level for heatwave, the following steps are required:

- analyse information (pre-planning and municipal scan)
- identify and set priorities for action areas (municipal scan and partnership development)
- determine format for documenting plan (municipal scan)
- draft content for plan (implementation)
- validate and finalise plan (implementation)
- present plan for adoption (implementation).

The brackets indicate the part(s) of the planning cycle where this activity would be undertaken.

The document or documents produced might also have specific stand-alone action plans within them. For example, there might be a specific communications plan that itemises activities and actions to occur throughout the year.

■ **Tip:** Consider activities such as a launch of the heatwave plan to increase the awareness of heatwave issues, build on partnership developments and demonstrate council's leadership and commitment to the community.



## Determining appropriate actions in the heatwave plan

■ **Pilot examples:** Some actions the heatwave pilot projects undertook include:

- providing bottled water at immunisation sessions
- working with surf lifesaving organisations to increase surf lifesaving patrols on beaches on weekdays
- taking children with disabilities to air-conditioned buildings, such as the cinema and shopping centre
- opening up the rooms at the day centre and inviting all participants to attend during heatwaves.

However, some issues that arose from the January 2009 heatwave include:

- cancelling sporting and community activities without notifying people involved
- experiencing high levels of stress while enduring the drought in rural areas.

Heatwave plans have a range of key features that can be incorporated into existing operational or service delivery arrangements (appendix 3). These elements include:

- heat-related health information plan (see part 3)
- reduction in indoor/outdoor heat exposure
- care of vulnerable population groups
- preparedness of service providers
- long-term planning.

Local councils should consider short-, medium- and long-term actions to reduce the impact of heatwaves on the community.

### Reduction in indoor/outdoor heat exposure

Reducing heat exposure can be achieved through:

- air-conditioned public areas
- residential air conditioning
- building design and fixtures (passive cooling, external blinds)
- shaded green spaces
- healthy personal behaviours (hydration, minimising effort, wet towels, etc.)
- rescheduling mass gathering events.

The community might be asked to minimise the use of air-conditioners when the power infrastructure is stressed during heatwaves. However, people at risk of heat-related illness should be exempt from these requests.

Local councils should also be aware of the occupational health and safety implications for staff and associated service providers during heatwaves. This may be incorporated into the training and development of staff.

### Care of vulnerable groups

Using the vulnerable population groups identified in the municipal scan, local councils should raise awareness of the health effects of heatwaves, encourage protective behaviours during heatwaves and provide regular contact and supportive services to people during heatwaves.

Family, friends or council service providers should make direct contact (for example by telephone call or personal visit) with vulnerable people to ask about their general wellbeing and how they are coping. Local councils might consider suggestions to help minimise inside temperatures, stay hydrated and relocate to cooler areas for periods of time. Additionally, vulnerable people should have access to the contact details of health and emergency services.

■ **Tip:** Using an electric fan when the indoor ambient temperature is 35°C or above can lead to dehydration and increase a person's heat load.

### Preparedness of service providers

The access that community service providers have to vulnerable population groups allows for the dissemination of information. Adequate training to assist the service providers in what to say and what to look for during heatwave visits is critical.

Hospitals, clinics and aged care facilities will also have contact with vulnerable people during heatwaves. The local council needs to be aware of whether these facilities have a heatwave plan, how the council can contribute to the plan and what impact the plan might have on the council's own heatwave plan.

### Long-term planning

Heatwaves should be considered in all strategic planning and policy development within council. This might include changes to building design or materials and subsidies for insulation or external window coverings.

## Other considerations

A list of recommended actions to incorporate into heatwave plans is in appendix 3. When determining what actions the council is adopting, consideration should be given to whether they are:

- feasible
- sustainable
- likely to be effective
- acceptable to the groups involved
- associated with specific risks.

When considering which actions are most appropriate, the local council should conduct a risk assessment to understand the potential impacts of implementing the action. Defining the purpose and setting clear expectations with council staff, stakeholders and the community are critical to the success of actions like cooling centres and community registers.

Community registers are being developed across the state with financial assistance from the Victorian Government, which will build on the existing registers in Victoria. The registers will be located at police stations and staffed by volunteers. Those eligible for the register are predominantly the elderly and people with a disability.

**Pilot example:** The Southern Grampians and Glenelg Primary Care Partnership heatwave pilot project worked with an international research project to measure temperature variations between insulated and un-insulated houses using computer data loggers in the township of Merino. The data collected will inform future implementation actions, which might include provision of information to encourage and support residents in insulating their homes.

## High-level commitment and adoption of the heatwave plan

Embedding heatwave planning in all relevant council plans will increase the council's and other stakeholders' capacity to manage and reduce the impact of extreme heat events.

Incorporating the heatwave plan into other key council plans means it will be subject to the auditing processes of some of these higher-order plans.

In order to achieve this, council's commitment to heatwave planning needs to be owned and adopted at the highest level, such as elected members and senior management. This begins with getting the mandate and leadership in the pre-planning phase. However, once the heatwave plan is finalised, a briefing with a copy of the heatwave plan can be submitted to council and senior management for adoption.

Desirable position at the end of the implementation phase of the planning cycle:

Action area	Outcome
<b>Raising awareness and capacity to manage heatwave events</b>	<ul style="list-style-type: none"> <li>• All business units within council are aware of heatwaves as an issue and the council heatwave plan.</li> <li>• Capacity of the community and the council to prepare for and respond appropriately before, during and after a heatwave has been optimised.</li> <li>• A risk assessment of the proposed actions is conducted.</li> </ul>
<b>Determining appropriate actions</b>	<ul style="list-style-type: none"> <li>• Actions to address risks to vulnerable population groups before and during heatwaves are identified and implemented.</li> <li>• Long-term planning actions are identified and implemented.</li> </ul>
<b>Integration of council plans and strategies</b>	<ul style="list-style-type: none"> <li>• The heatwave plan is written.</li> <li>• Heatwaves are recognised in the Council Plan, Municipal Public Health Plan and Municipal Emergency Management Plan.</li> <li>• Council heatwave plan is integrated into other council plans, strategies and policies – and vice versa.</li> </ul>
<b>High-level commitment and adoption of the heatwave plan</b>	<ul style="list-style-type: none"> <li>• Senior management recognise and support inclusion of heatwave in high-order council plans.</li> <li>• Senior management and elected members actively participate in the implementation of the heatwave plan.</li> <li>• Council adopt the heatwave plan and follow through on the actions and activities contained in the plan.</li> </ul>

## 2.6 Evaluation

### Evaluation approach

Having developed the evaluation strategy in the pre-planning phase, the evaluation process should start when the heatwave plan is implemented. The aim is to have all relevant stakeholders actively participating in the evaluation and monitoring of the process to ensure maximum benefit for the investment.

An evaluation of the process will review whether the actions in the adopted heatwave plan occurred within acceptable timeframes and achieved the desired result. For example, one action in the heatwave plan might be to provide community care workers with information to share and discuss with their clients. The evaluation might assess whether the workers received the information, when they received the information and whether the clients understood and found the information useful.

The evaluation should involve a number of different methods, and gain information from various sources.

### Performance measurement

Effective monitoring and evaluation requires clear and measurable goals. The inclusion of indicators or performance measures will make it easier to determine the extent to which the heatwave plan objectives are achieved. This may have been decided when the evaluation strategy was developed in the pre-planning phase. However, before commencing the evaluation it is advisable to review the strategy.

The evaluation process also needs a reporting schedule to ensure the information and data collected, and its analysis, are produced in a timely fashion to maximise the use of the material by all relevant stakeholders.

Desirable position at the end of the evaluation phase of the planning cycle:

Action area	Outcome
Evaluation approach	<ul style="list-style-type: none"> <li>All relevant stakeholders actively participate in the evaluation and monitoring process as appropriate.</li> </ul>
Performance measurement	<ul style="list-style-type: none"> <li>All monitoring and evaluation measures and indicators have been determined and data and information collection processes are in place.</li> <li>Evaluation reporting requirements and reporting schedule are determined and in place.</li> </ul>
Using evaluation and evidence effectively	<ul style="list-style-type: none"> <li>The strategy has a developmental approach to evaluation that builds the capacity of the local council and the community to minimise the impacts of heatwave on the community.</li> <li>Outcomes of the evaluation process are used to build the heatwave evidence base within the local council and externally.</li> <li>Evaluation findings are used to improve the planning processes and heatwave outcomes in subsequent heatwave and other relevant plans and strategies.</li> </ul>

### Using evaluation and evidence effectively

An evaluation of the heatwave plan should occur, as a minimum, at the end of each summer season. Depending on the frequency of heatwaves, it might be impossible to evaluate the plan after each event. However, after a major event, it might be beneficial to evaluate the plan or particular activities immediately.

After completing the evaluation, the local council should undertake the steps necessary to address any issues raised and update the heatwave plan accordingly.

■ **Tip:** The heatwave plan is a living document. Take time to reflect on heatwave events and update the heatwave plan accordingly.

The evaluation should also add to the base of evidence, which contributes to the local council making informed decisions and developing sound actions and activities in subsequent heatwave plans and other associated plans that council prepares and implements.

An effective evaluation process should provide valuable outcomes, which in turn builds the evaluation culture and commitment to future evaluation processes by all participating organisations.

■ **Pilot example:** The Wimmera Primary Care Partnership project had follow-up discussions with the four shires involved in the pilot to see what happened and what worked well. Yarriambiack Shire Home and Community Care identified adding a 600ml bottle of water to every meals on wheels delivered.



## Part 3: Communication strategy

### 3.1 Introduction

Within the overall heatwave planning process, consideration might be given to preparing a specific heatwave communication strategy. This strategy would identify target groups for information, key and consistent messages, communication timeframes and tools.

Such a strategy would also need to complement those of neighbouring municipalities and other key stakeholders at a state and regional level.

■ **Tip:** Establish a 'Heatwave Taskforce' to help with the implementation and dissemination of messages.

### 3.2 Internal communication

The local council should develop an internal communication strategy to:

- advise council staff about heatwave-related protocols, actions and communication
- alert council staff about impending heatwaves
- inform council staff when the heatwave is no longer imminent or has finished.

When the Department of Human Services advises the local council of an impending heatwave, the alert needs to be disseminated to all relevant areas of the local council. The flow of information should, therefore, be documented and agreed upon by those involved.

The local council should also consider who is most appropriate to receive the electronic notifications from the department's heat alert system and communicate this to the department. It is preferable for two people from each local council to receive the notification.

### 3.3 Stakeholder communication

Engaging internal and external stakeholders will require a communication strategy. This strategy may be simple or complex depending on the relationship the council has with the stakeholder.

The stakeholder communication should address how stakeholders will be engaged, when they will be engaged and what is expected from the engagement process. The communication strategy should identify who in the organisation will be able to contribute to and make decisions about the heatwave plan.

### 3.4 Communication messages

Communication messages during a heatwave provide timely and accurate information to the community to reduce the impact of extreme heat events.

■ **Tip:** Use consistent, evidence-based information developed by the Department of Human Services.

The Department of Human Services will provide communication material and identify key health messages for the community and vulnerable population groups. The messages will be:

- developed before the summer season
- tested in the community, including vulnerable population groups
- targeted at specific vulnerable population groups or the whole community.

In order for these methods to be effective, the messages need to be:

- in plain and simple language
- specific
- regular
- consistent
- targeted
- translated for culturally and linguistically diverse groups
- available in a variety of formats
- able to be remembered and acted on
- achievable by the public.

The information provided will depend on the risks and needs of the specific target audience. The elderly, for example, will need feasible practical tips and emergency contact information.

The language used for these messages must be clear and not require interpretation. For example, when providing a public message, begin with a general example, such as 'If you are planning to do any outside jobs', then give an example like 'such as mowing the lawn' and state the action, 'do it before 9.00 am'.

During a statewide heatwave, the department will collaborate with Ambulance Victoria to provide key health messages for use by the media. Key health messages can be found on the department's website.

The key messages that should be communicated to the community to reduce the health impacts of heatwaves are:

- keep the home cool
- keep out of the heat
- keep the body cool and hydrated
- help others
- what to do if you have a health problem
- what to do when others feel unwell.

### 3.5 Communication methods

There is a range of ways that information and assistance might be provided to help the community better prepare for heatwaves and respond to them. These include:

- information and assistance provided by the state government
- information and assistance provided by local councils
- information and assistance provided by service providers
- information and assistance provided by non-government organisations
- information distributed through the media.

■ **Pilot example:** Spread heatwave messages quickly and effectively by using Home and Community Care workers who have existing relationships with people vulnerable to heat-related illness.

Communication about the risks of heatwaves and preventative measures should start before the summer season begins. Introducing the information early will ensure the community is better prepared and might influence behavioural changes.

Most information might be disseminated passively through leaflets and newspaper articles. However, consideration should be given to whether the target audience will understand, remember and have access to the information. The elderly, in particular, need the information reinforced through active measures such as visits from service providers. Likewise, when disseminating heatwave information to culturally and linguistically diverse groups, consideration should be given to culturally appropriate routes.

■ **Pilot example:** Latrobe City Council developed a range of material, merchandise and give-aways suitable for a resident's heatwave pack, including information, a water bottle, a neck cloth and a recyclable bag.

Some methods used to disseminate key health messages include:

- fact sheets, posters, leaflets, brochures and booklets
- information on intranet and internet websites
- articles in the local and regional newspaper, newsletter or magazine
- broadcasts on the local radio station
- advertisements on television
- information shared with existing networks, such as the health promotion network
- information relayed to patients by their doctors
- letters to businesses, aged care facilities and other establishments with clients vulnerable to heatwaves
- visits to vulnerable people by service providers, volunteers or neighbours.

■ **Tip:** Use existing communication networks with vulnerable population groups, such as email, post, print and direct contact via staff and contracted service providers. Consider the timeframes required for the stakeholder to receive and impart the information to the vulnerable population groups.

### Tips for working with the media

The Department of Human Services will collaborate with Ambulance Victoria to provide media releases with key health messages during extreme heat events. This will typically occur during statewide heatwaves, so local councils might still consider engaging the media when heatwaves occur in isolation in their particular area.

The media should be viewed as a partner, with a close relationship delivering the best results. Regional publications routinely receive several hundred media releases each week. In most cases those who do more than just send a media release are more likely to get the desired result.

Such a relationship might also increase the chances of specific support when heatwaves are forecast or occurring. For example, a close relationship with the local television or radio station might enable a heatwave message to be included in the weather report.

### Tips for working with partners

The local council might consider engaging partners like service providers and general practitioners or nurses to disseminate information. The type of information and the most appropriate means of conveying the information should be discussed and agreed upon.

Timing of the information is critical for effectiveness. The local council and the partner should agree when the information is required to reach the targeted audience. This might be particularly critical if the partner works Monday through Friday and the heatwave is expected on Saturday.

Partners who agree to disseminate information might also require training. The training could include education about heatwaves, how to identify people in distress from the heat and how best to relay the information.

It is important to communicate the evidence that heatwaves can have a substantial public health impact on communities, particularly among vulnerable groups. It is also important to stress that these impacts can be reduced with some relatively simple measures.







## Glossary

<b>Cooling centres</b>	A cooling centre is a temporary air-conditioned public space set up to deal with the health effects of a heatwave. Usually situated at a number of locations throughout a city, they are intended to reduce the risk of extreme heat to vulnerable people, especially those who do not use or have access to air conditioning, especially among older people without air conditioning at home, or homeless people.
<b>Council heatwave plan</b>	‘Council heatwave plan’ is used to describe the product of a local council’s heatwave planning process. This might be compiled into a single document or have particular actions featured in a number of existing municipal plans and strategies.
<b>Department</b>	Refers to the Department of Human Services.
<b>Heat islands</b>	Heat islands form in urban and suburban areas because many common construction materials absorb and retain more of the sun’s heat than natural materials in less developed rural areas. The temperature difference is normally more pronounced at night than during the day.
<b>Vulnerable people or population groups</b>	<p>People with the following characteristics are considered vulnerable to heatwave:</p> <ul style="list-style-type: none"> <li>• older people (65 years and older)</li> <li>• children under 5 years old</li> <li>• pregnant or nursing mothers</li> <li>• people with pre-existing medical conditions, such as diabetes, heart disease, kidney disease or mental illness</li> <li>• people with a condition that impairs the body’s abilities to regulate its own temperature like Multiple Sclerosis</li> <li>• people with heat intolerant conditions such as Multiple Sclerosis</li> <li>• people living alone with little social contact</li> <li>• people taking certain medications, such as those for depression or insomnia</li> <li>• people with a disability.</li> </ul> <p>People in the following circumstances are considered vulnerable to heatwave:</p> <ul style="list-style-type: none"> <li>• people without air-conditioning or who decide not to use it</li> <li>• homeless people</li> <li>• low income earners</li> <li>• people with limited access to transport</li> <li>• people outdoors for any reason, especially doing strenuous activity, working or playing sports</li> <li>• residents in the upper floors of multi-storey buildings</li> <li>• some people from culturally and linguistically diverse backgrounds who cannot access health services or information.</li> </ul>

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## Websites

Australian Bureau of Meteorology

<http://www.bom.gov.au/weather/vic/maps/vic-forecast-map-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](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>

Victorian Council of Social Service

<http://www.vcross.org.au>

## State Emergency Service

Community Emergency Risk Management Model

<http://www.ses.vic.gov.au/CA256AEA002F0EC7/page/What+we+do-Emergency+Management+Planning-Risk+Management?OpenDocument&1=20-What+we+do~&2=10-Emergency+Management+Planning~&3=10-Risk+Management>

## Department of Human Services

The 'Climate Change and Human Health' Conference 2007

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

The Department of Human Services will provide communication material, and identify key health messages for the community and vulnerable population groups. This information is available at

[http://www.health.vic.gov.au/environment/emergency\\_mgmt/index.htm](http://www.health.vic.gov.au/environment/emergency_mgmt/index.htm)





## Appendix 1: Comparison of emergency management and municipal public health planning

Municipal public health planning		Heatwave implications	Emergency management		Establish context
Preplanning	Mandate		Determine risk context		
	Leadership	Many municipalities identify emergency management as substantially the responsibility of the 'outdoor' or physical services side of their activities - often managed part-time by engineers	Decide the structure		
	Coordination	A shift towards the community services side of council activities might mobilise the community to respond better to emergencies and building community resilience			
Municipal scanning	Community profile	Might share common task of collecting demographic data	Profile community		Identify risks
	Needs analysis	Scan for vulnerable groups is stronger as 'Identify risks' and 'Analyse risks'	Identify vulnerable elements		
	Asset mapping	Contributes to identifying and assessing treatment options	Identify sources of risk		
Partnership development	Stakeholder analysis	All 'Partnership development' contributes to 'Identify risks', 'Analyse risks' and 'Treat risks'	Determine likelihood		Analyse risks
	Inter-organisational partnerships	Benefits gained from relationship building and other effective engagement methodologies	Determine consequences		
	Community consultation		Establish level of risk		
	Internal stakeholder consultation				
Implementation	Prioritisation	Heavily reliant on emergency management model	Determine risk priority		Treat risks
	Strategy development	Might share plan layout and presentation options	Identify and assess treatment options		
	Action planning		Prepare treatment plan		
Evaluation	Monitoring	Might share measurement development and reporting options	Monitor and review		Monitor and review
	Review planning process				

## Appendix 2: Potential stakeholders and partners

Below is a list of potential stakeholders and partners to consider when developing a heatwave plan. Some are less traditional in the health and emergency services context.

### Community and community health organisations

- Disability service providers
- Organisations such as Australian Red Cross Telecross, or Duress Alarm Monitoring services
- Community Health Centres
- Family Day Care Centres
- Child Care Centres
- Playgroups, such as Nursing Mothers Groups
- Market organisers
- Local radio stations
- Youth Council
- Greenhouse Alliances
- Rural Housing Networks
- Aged Services
- Aged networks and Senior Citizens Associations
- Aged accommodation
- Pharmacies
- Tourism Information Centres.

### Providers disability organisations to specific vulnerable population groups

- Culturally and linguistically diverse group organisations
- Koori organisations
- Returned and Services League (RSL).

### Emergency and professional health services

- Emergency Services – fire, police, ambulance, State Emergency Service
- General Practitioner clinics
- Aged care facilities
- Divisions of General Practice
- Royal District Nursing Service
- Regional and Community Health Centres
- Hospitals
- Schools
- Surf Life Saving Clubs
- Volunteer Coast Guard.

### Private sector

- Leisure Centres
- Health Centres
- Sporting Clubs
- Cinemas
- Shopping Centres
- Businesses.

### Government departments and agencies

- Health
- Housing
- Aged care
- Family and community services
- Education
- Emergency services
- Climate change
- Community development
- Transport
- Utilities.

### Within council

- There are a number of divisions and programs within the local council that could work together before, during and after heatwave events. Some of this partnership development might require similar processes to those used with external organisations, as the local council can operate as a number of relatively separate business units.

## Appendix 3: Recommended elements of heatwave plans

Internationally, a wide range of activities have been used in heatwave planning and operations. These activities can range from the passive (media statements and warnings) to the active (direct daily contact and assessment of vulnerable groups). Heatwave plans should include preparatory elements that are conducted before the summer season, actions that are implemented during heatwaves, and measures that can be developed over the longer term.

Overwhelmingly, protective measures for vulnerable groups should be considered the priority of all heatwave plans. This includes identifying vulnerable populations, raising awareness of the health effects of heatwaves, encouraging protective behaviours during heatwaves, providing regular contact and supportive services to people during heatwaves, and establishing community measures that can help reduce exposure to heat.

Below is a list of possible elements or actions that can be used in heatwave planning:

### Heat-related health information plan

- Develop and administer a register of vulnerable population groups to provide key health messages during heatwaves.
- Actively promote awareness of heatwaves as a health issue to council, health and social sectors, and in the community, particularly among vulnerable populations.
- Develop, facilitate and promote education, information and awareness programs and materials.
- Notify service providers of vulnerable population groups of impending heatwaves, the information to disseminate and actions to undertake during heatwaves.
- Advise relevant agencies activated in response when heatwave conditions have passed.
- Promote the location of cool areas, cooling centres and hydration facilities.
- Translate and disseminate heatwave awareness materials for vulnerable population groups.
- Provide heatwave and heat-related illness information to general practitioners and chemists for distribution.
- Establish a heatwave hotline to provide key health messages.
- Promote Nurse-on-call to the community for health information during heatwaves.
- Establish awareness programs and disseminate information through schools.
- Brief council staff and key agencies about actions and responsibilities identified in the heatwave plan.

- Build a heatwave evidence base to inform future heatwave planning.
- Report evaluation outcomes to all stakeholders.
- Review policies, procedures and practices after each summer season and update heatwave plan accordingly.

### Reduction in indoor/outdoor heat exposure

- Identify and promote safe, public places during heatwaves that are air-conditioned, such as libraries or movie theatres.
- Establish cooling centres in air-conditioned council buildings, or use mobile air conditioning units.
- Promote information about the risk of dehydration from using electric fans when the temperature is above 35°C.
- Promote the use of external shading and blinds to delay internal temperature rise.
- Provide or install water fountains in public places.
- Establish a cancellation policy for outdoor sport and recreation events during heatwaves.
- Facilitate access to hire of cooling equipment and resources for the community and businesses.
- Designate parking in shaded areas for the elderly and people with a disability.
- Provide shade and shaded seating in public areas during heatwaves.
- Plant trees for shade in public open spaces.
- Install thermometers in buildings to raise awareness.

### Care of vulnerable groups

- Increase outreach to vulnerable population groups during heatwaves.
- Encourage family and friends to contact vulnerable people.
- Assist institutions or facilities accommodating vulnerable populations to develop and implement heatwave plans to reduce the risk to their residents.
- Provide assistance with costs of running air conditioners.
- Encourage or sponsor the elderly to have personal alarm systems.



## Preparedness of the health and social care system

- Train local council staff and staff of other organisations who have a role during heatwaves.
- Train workers with vulnerable population groups to recognise the signs of heat-related illness.
- Provide additional fluids to vulnerable people through existing service arrangements.
- General practitioners and hospitals should consider adjusting dosages or changing certain medications during hot weather based on the individual patient's circumstances.
- Clinics, hospitals and pharmacies holding prescription medication or vaccines should be prepared to maintain and monitor their cold chain or arrange suitable storage conditions for stock.
- Partner with monitoring programs, such as Telecross, to telephone vulnerable population groups to check on their health and safety during heatwaves.
- Develop protocols and formalise agreements with emergency services.
- Partner with Community Health Centre and Nursing Mothers Group to maintain a contact register.
- Partner with caravan park operators to provide safe haven information.

## Long-term planning

- Promote thermally protective building design and materials.
- Consider planning scheme requirements that promote cooler homes.
- Subsidise and encourage window tinting and double glazing of houses.
- Promote external window coverings for homes.
- Subsidise and encourage insulation of houses.
- Conduct a heat audit of homes of vulnerable population groups (with their permission).
- Promote government-supported insulation purchase and installation schemes.



## Appendix 4: Heatwave planning checklist

This checklist will assist local councils to ensure that the tasks required to complete the heatwave plan are considered and completed.

### Step 1: Gain management support

- Person responsible for managing the project identified.
- Mandate established in council's senior management.
- Leaders in the local council and external stakeholders identified.
- Signatories required to sign off on the final plan identified.
- Elected members that can contribute to the planning process identified, engaged and committed.
- Steering group members identified and agree to participate.
- Role of the steering group agreed upon.

### Step 2: Determine in which plan or plans heatwave will feature

- Council plans to incorporate the heatwave plan identified.
- Responsible person(s) for each identified plan engaged and supportive of heatwave planning.
- Appropriate planning frameworks identified.
- Stakeholders conducting heatwave planning identified and engaged.
- Other heatwave plans, protocols or legislation affecting the local council's heatwave plan identified and considered.
- Available resources identified and allocated with specific roles or functions in the planning process.
- Sources of information needed to conduct municipal scan identified.
- Information collected and analysed.
- Planning processes that may incorporate heatwave in other organisations identified.
- Council heatwave plans aligned with heatwave planning of other organisations.
- Timeframe for collecting and analysing data established and listed in project plan.
- Project plan developed and agreed upon.

### Step 3: Assess needs of vulnerable population groups

- Vulnerable population groups identified and prioritised.
- Organisations working with vulnerable population groups identified and engaged in the planning process.
- Data and information about vulnerable population groups collected.
- Relevant data and information analysed.
- Key stakeholders associated with vulnerable population groups identified and engaged.

### Step 4: Engage internal and external stakeholders

- Key internal and external stakeholders identified.
- Level of interest in stakeholders identified.
- Engagement strategy for each stakeholder developed and implemented.
- Information needed from the stakeholders identified.
- Desired contribution of key stakeholders identified.
- Internal stakeholders to be consulted identified.
- External stakeholders to be consulted identified.
- Community members to be consulted identified.
- Method for consulting each organisation or individual identified.
- Timeframe for consultation process identified, agreed upon and incorporated into the project plan.
- All stakeholders consulted, information collected and analysed.
- Partners identified.
- Engagement strategy for each partner identified.
- Partners engaged in the heatwave planning process.

### Step 5: Identify and agree on goals and strategies

- Objectives and desired outcomes of the partnership identified and agreed upon.
- Key contact within the partner organisation identified and suitable to engage in the planning process.
- Partnerships formalised.
- Organisations needing heatwave plans in their internal policies and practices identified.
- Opportunities for awareness-raising identified.

### Step 6: Write the heatwave plan

- Appropriate people or organisations have agreed to participate in the plan.
- Heatwave plan is complete and endorsed by council.

### Step 7: Design evaluation strategy

- Evaluation process developed and agreed upon.
- Measurable goals and objectives defined and agreed upon.
- Different types and levels of evaluation identified and implemented to provide quantitative and qualitative information on the inputs, impacts and outcomes of the heatwave plan.
- Frequency of evaluation identified.
- Evaluation of the heatwave plan commences when the plan is implemented.
- Evaluation strategy documented and endorsed.

### Step 8: Implement the heatwave plan

- Heatwave plan launched and all stakeholders aware of the plan.
- Heatwave strategies implemented.

### Step 9: Review the plan after each summer season

- Heatwave plan evaluated annually.
- Findings from evaluation used to inform future updates to the heatwave plan.



## Appendix 5: Heatwave planning template

The following template can be used by local councils to facilitate the heatwave planning process. It is not meant to act as the heatwave plan.

**Step 1: Gain management support.** Who will be steering the project? Who will sign off on the final plan? Who should the leaders be and be seen to be? What is the current level of commitment or interest? How will leaders be engaged in the process?

Name	Position	Level of interest/commitment	Engagement strategy

### Steering group

Who will sit on the steering group? Who can make or influence decisions? What authority or role will the steering group have?

Consider:

- an elected member of council
- the manager of Community Care Services
- the manager of Emergency Response
- the manager of the Primary Care Partnership
- the officer in charge of the local Ambulance Service
- the officer in charge of the local Police Service
- the managers of relevant community organisations.

Name	Position	Unit/Organisation	Level of interest

**Step 2: Determine which plan or plans heatwave strategies will feature in.** Where do the heatwave actions and plans link to council’s other plans – the Council Plan, the Municipal Public Health Plan and the Municipal Emergency Management Plan? What other plans are most likely to be relevant or overlap with heatwave planning? Who is responsible for these plans? How will each individual or group be engaged in the process? How will the heatwave plan be incorporated into the plan?

Plans to consider:

- Municipal Strategic Statement (MSS)
- Municipal Public Health Plan (MPHP)
- Municipal Emergency Management Plan (MEMP)
- whole-of-council plans, such as a risk management plan
  - population group strategies, such as a positive ageing strategy, a Koori strategy, a disability strategy, an early years strategy, a cultural diversity strategy or an inclusion strategy
  - geographic plans, such as small town plans in rural areas
  - areas overseen by specific groups, such as a community safety plan implemented by the community safety committee.

Municipal plan	Responsible person	Timeframes	Heatwave actions to incorporate

What other activities, plans, strategies or policies will impact on the heatwave plan? Are there other structures in place to associate heatwave with, or to build on? Who can provide the best information or advice? What community infrastructure and physical assets are available? What community, social and service provider capacity is available?

Relevant council activity	Contact
(Activities, plans, strategies, policies, infrastructure, assets, providers, and so on)	

**Step 3: Assess needs of vulnerable population groups.** Who are the vulnerable population groups in the municipality? How prevalent is each group in the community? What are the risks for each group from heatwaves? How do we set priorities to recognise the needs of these different groups? What do we already know about each group? What data and information do we need to assist with planning?

Consider:

- older people (65 years and older)
- children under 5 years old
- pregnant or nursing mothers
- people with a pre-existing medical condition, such as diabetes, heart disease, kidney disease or mental illness
- people with heat intolerant conditions such as Multiple Sclerosis
- people living alone with little social contact
- people taking certain medications, such as those for depression or insomnia
- people with a disability
- people without air-conditioning or who refuse to use it
- homeless people
- low income earners
- people with limited access to transport
- people outdoors for any reason, especially doing strenuous activity, working or playing sports
- people who live in the upper floors of multi-storey buildings
- some people from culturally and linguistically diverse backgrounds who cannot access health services or information.

Vulnerable population group	Presence in community / Priority	Information required

Step 4: Engage internal and external stakeholders.

**Internal stakeholders:** What business areas of the local council are critical to heatwave planning? How will internal stakeholders be engaged?  
What is the level of interest of each of the stakeholders?  
Consider the potential stakeholder list in appendix 2.

Department/Unit	Contact	Level of interest	Connection to heatwaves

**External stakeholders:** Which individuals and organisations are relevant to heatwave planning? Who can make or influence decisions?  
Who can provide the best information or expertise? Who’s who in the organisation hierarchy? What is their level of interest?  
How will external stakeholders be engaged? What is the current relationship? Can other areas in council assist?

Consider the potential stakeholder list in appendix 2.

Agency	Contact	Level of interest	Connection to heatwaves



**Develop consultation strategy for stakeholders and the community.** Who needs to be consulted in the development of the heatwave plan?  
What method or methods will be used to consult with each group?

Stakeholder	What is in it for them?	Consultation strategy
Who are they?	What are their goals? Who are they concerned for? How can heatwave planning help them?	What is the most effective way to work with this stakeholder?

**Identify partners.** Who are potential partners for before, during and after a heatwave? Where might existing relationships be extended?  
How can the local community, community organisations, government departments and agencies and other stakeholders be engaged?  
Consider the potential partner list in appendix 2.

Partner	What is in it for them?	Consultation strategy
	What are their goals? Who are they concerned for? How can heatwave planning help them?	What is the most effective way to work with this partner?

**Determine partnership arrangements.** How can key partnerships be developed, supported and refreshed? What are the partnership objectives or desired outcomes? At what level should the partnership discussions and negotiations take place? Which partnerships might need formalising in writing? What is the timeframe and review process required for each partnership?

Activity	Partners/Roles	Steps to be taken	By whom	By when	Resources

**Step 5: Identify and agree on goals and strategies.** What do you want to achieve with the heatwave plan? What has been agreed upon with council, senior management, stakeholders and partners? Are the goals and strategies specific, measurable, attainable, relevant and time-framed?

Goals	
Strategies	

**Check what other organisations are doing around heatwave planning.** Are there other organisations that can be supported to develop their own policies and practices?

Organisation	Contact	Plan/Activity

**Identify other local councils with similar demographics or circumstances:** Who can influence or make decisions? What information can be gathered from neighbouring local councils about heatwave planning? What plans, strategies or policies do other local councils have that might impact on council’s heatwave plan? Can other areas in council assist?

Council	Contact	Area of overlap

**Determine information needed to complete the heatwave plan.** What information is available to inform the plan? Where is this information? What information has already been analysed for other plans or projects?

Consider the list on page 19 or from the department’s website, including:

- literature research
- data collection and analysis
- community and stakeholder consultation
- internal council consultation.

Information	Source

**Step 6: Write the heatwave plan.** What are the action areas and priorities for the plan? What level of risk is associated with each strategy? Who has to sign off on the completed plan? What is the sign-off and endorsement process? How will the plan be launched and implemented to gain maximum exposure and buy-in?

A sample heatwave strategy format is detailed below. There are a number of formats that can be used to present the heatwave plan. Ideally, whichever format is chosen, consideration should be given to the following information: strategy or action; the person responsible for each activity; timeframes; resources; monitoring and evaluation. Remember that the heatwave plan is likely to be included in a number of council plans and strategies, and might not be a stand-alone document.

Goal:					
Strategy	Action	Responsibility	Timeframe	Resources	Indicators

**Step 7: Design evaluation strategy.** What is being evaluated: inputs, impacts or outcomes? How well do the goals and objectives lend themselves to evaluation? Who else (partners, other stakeholders and council divisions or units) should be involved in monitoring and evaluation? What indicators will be used to determine the effectiveness of the plan? What is the evaluation and reporting schedule during the period of the plan?

What is being evaluated?	Indicators	By whom?	Frequency

**Step 8: Implement heatwave plan.** Who will receive heat alert warnings from the department? Who else should know of impending heatwaves?  
How will information be provided?

Contact	Role

**Develop communication strategy for informing stakeholders and the community.** Who should know about impending heatwaves?  
What information do they need? When will information be provided? How will information be disseminated?

Agency	Contact	Information needed	Method of dissemination

**Step 9: Review the plan after each summer season.** Implement review based on the evaluation strategy. How can effective debriefs be initiated and aided? How can results be disseminated and the learning from evaluation shared? How can evaluation be used to build the evidence base? What has been learned? What needs to be done differently next time? What needs to be done the same way?

Strategies	Indicators	Performance rating or description	Actions



