

# MUNICIPAL HEATWAVE PLAN



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**DOCUMENT CONTROL**

<b>Endorsed by:</b> Council	<b>Date endorsed:</b> April 2019	<b>Next review date:</b> April 2022
<b>Directorate:</b> Assets	<b>Department:</b> Asset Maintenance	<b>Contact officer:</b> Emergency Management Coordinator

## Endorsement and Adoption

This plan was adopted by the Alpine Municipal Emergency Management Planning Committee at their meeting on:

On 20 of February 2019

Signed 

Chair Cr. Ron JANAS

This plan was endorsed by Alpine Shire Council on:

On 3<sup>rd</sup> of April 2019

Signed 

CEO, Charlie BIRD

Alpine Shire Council

### Version Control table

<b>Version Number</b>	<b>Date of Issue</b>	<b>Author(s)</b>	<b>Brief Description of Change</b>
Version 1	06/03/2012	John Boal	Doc development
<b>Version 2</b>	05/02/2019	Karen van Huizen	Complete review and rewrite in line with the State Heat Plan, including addition of heat threshold and change in Lead agency and update of communication plan

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# 1 WHAT IT IS ALL ABOUT

In the past, people in Alpine Shire have dealt with prolonged periods of heat using a common sense approach. Our Council and other local organisations have used a variety of informal systems during summer to reduce the effects of heat especially on those at risk to heat illness. These have included 'Sunsmart' policies, the use of air-conditioners, flexible working hours and passing on temperature forecasts.

As we face a future with an increased likelihood of hot weather, it is important that the Alpine Shire Council develops, maintains and implements a municipal-wide approach to dealing with heatwave events. Our plan provides a framework of support to our local community and vulnerable population groups so we can be better equipped to handle more intense and frequent heatwaves.

The *State Heatwave Plan 2015* sets out arrangements to ensure an integrated and coordinated approach to the management of heat events, so as to reduce the impact and consequences of heatwaves on the community, infrastructure and services. It sets out responsibilities, a collaborative approach to be taken by government and emergency management agencies, and planning and arrangements to be made by functional sectors of government and industry to prepare for a heat event in order to reduce its impact on the community, infrastructure and services.

The *Alpine Shire Council Heatwave Plan* is also underpinned by a long term approach by Alpine Council, in partnership with stakeholders and neighbouring shires, to reduce the scale of climate change and decrease its overall impact on the local environment.

The *Heatwave Plan* has been written to:

- Be read in conjunction with the Municipal Emergency Management Plan (MEMP)
- Be consistent with departmental guidelines and other Council planning frameworks;
- Outline health, community and emergency service actions and response arrangements to heatwave alert;
- Identify vulnerable persons within the Alpine community;
- Propose a clear communication strategy to initiate alert, response and recovery phases of the plan;
- Describe key stakeholder roles and responsibilities; and
- Promote a community awareness and education component.

## 2 WHY WE NEED A HEATWAVE PLAN

Local councils in Victoria are required to prepare heatwave plans to support their local communities to adapt to heatwave conditions. By developing our own plan, we can use our understanding of local conditions and resources to better prepare for, respond to and recover from heatwave conditions.

High temperatures can seriously impact on the health of people in our shire, especially the very young, the elderly, people with chronic disease, those with a disability, on medication or working outdoors, tourists and farmers. We need to be well prepared in advance to make sure our community has the necessary tools to cope in times of extreme heat.

Projected climate change impacts for the region indicate increasing frequency and duration of heatwaves in the future

By having a *Heatwave Plan*, we can:

- Ensure that health information and support is readily available to our community;
- Increase the capacity of our community to respond during heatwaves;
- Manage a heatwave emergency more effectively; and
- Develop long term changes in our behaviour to improve our health and wellbeing.

The aim of our *Heatwave Plan* is to:

- Support the Alpine community to prepare-for, respond-to and recover-from heatwave conditions.

We will achieve this by:

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

### 3 HEATWAVE PLANNING

All Victorian councils are required to strive to meet the goals outlined in the *State Heat Plan November 2015* which is a sub plan of the *State Emergency Response Plan (SERP)*. These goals include:

- Councils to activate their heatwave plans upon receipt of a Health Heat alert (see heat threshold diagram page 11) from the Chief Health Officer from the Department of Health and Human Services. This will include enhanced actions from the pre-heatwave phase;
- Contact at-risk Victorians, on the Vulnerable Person's Register (VPR), to ensure their safety and wellbeing during a heatwave; and,
- Use local media and community services networks to inform and convey important information and advice on staying healthy in the heat to the Alpine shire community.

The *Alpine Shire Council Heatwave Plan* is a sub plan of the *Municipal Emergency Management Plan (MEMP)* and is used by Council and its partners in planning-for and responding- to heatwave conditions. It has clear links to the *Alpine Shire Liveability Plan* and the *Council Plan*.

The plan has been developed using the general principles of emergency management as a guide to planning, preparation, response and recovery under the Victorian Government legislative framework relating to heat events detailing the different areas across government and the health and community sectors. This includes:

- *Emergency Management Act 1986;*
- *Planning and Environment Act 1987;*
- *Local Government Act 1989;*
- *Public Health and Wellbeing Act 2008;*
- *Emergency Management Act 2013; and,*
- *Climate Change Act 2017.*

A Community Emergency Risk Assessment (CERA) has been completed for heatwaves with a residual risk rating of high which requires a plan. For further detail refer to **section 4.4** and in **4.4.3** of the *Alpine Shire Council Municipal Emergency Management Plan*.

## 4 WHAT OUR COMMUNITY LOOKS LIKE

### Our Setting

The Shire of Alpine is, three and a half hours from Melbourne, one hour from Wangaratta and an hour and twenty minutes from Albury/Wodonga.

Alpine adjoins the following municipalities:

- Indigo Shire Council to the north
- Towong Shire Council to the northeast
- Rural City of Wangaratta to the west
- Wellington Shire Council to the south
- East Gippsland Shire Council to the southeast

The shire is 92% public land which includes Mt. Buffalo National Park and large tracts of the Alpine National Park. The remaining 8% of land consists of towns, villages and farming land in the major river valleys: Ovens, Buffalo and Kiewa valleys. Our economy relies on its tourism and agricultural base and its regional association with Wangaratta.

### Our Population

Alpine Shire had a population of 12,131, at the time of 2016 ABS, which in the peak period of Autumn, Spring and Summer, grows up to 25,000 people. The population predominantly live in the townships of Bright, Myrtleford and Mt. Beauty, whilst the remaining population live in the smaller townships and villages of: Tawonga, Tawonga South, Dederang, Dinner Plain, Porepunkah, Harrietville, Wandiligong, Eurobin, Falls Creek, Mt Buffalo and Mt. Hotham.

Currently, the Shire population comprises of:

- An ageing population with 20.5% of the population aged over 65 years or over.
- A significant proportion of young families and tree changers.
- 60% choosing to live in the major towns of Bright, Porepunkah and Myrtleford.
- A proportion of peri-urban people who commute to Wangaratta or Albury-Wodonga.

### Our Lifestyle

The natural environment has a significant influence on our lifestyle. It contains a wide range of natural environments including Victoria's highest peak, Mount Bogong (1986 metres) and several others over 1800 metres. The broad, undulating Bogong High Plains and part of the Dargo High Plains are also major features of the Shire and include some spectacular landscapes along with Mt Buffalo. The valleys are separated by hills which rise approximately 600 metres above the valley floor with two major (bitumen) roads and numerous 4WD tracks connecting the two valleys.

The area supports a wide variety of vegetation types with many species being rare or endangered and has four distinct seasons that attracts many visitors to the area. Many

residents and visitors enjoy an outdoors lifestyle, in nature, skiing, swimming, cycling, at food and wine or arts and cultural events.

Alpine has significant cycling opportunities linked to many walking tracks, great for a picnic in the warmer months, bushwalking, cycling, hiking, bird watching and photography. Winter and summer outdoor sports are very popular within the Alpine Shire such as snowboarding, gliding and paragliding.

Alpine has strong vibrant communities, which is a backdrop for many community events and celebrations. There are approximately 130 events each year involving one or more outside activities that attract thousands of locals and visitors. As well as tourism, the Region is also a national leader in the provision of snow resorts, production of tree nuts and peppermint oil, sites for hang gliding, paragliding, and a State leader in growing hops, softwood timber, and apples.

Alpine residents have access to a variety of services, healthcare and education around the shire. Some residents commute to Wangaratta or Albury/Wodonga for work, shopping, sporting and entertainment such as, shows and music events.

## Our Climate

The Alpine shire has four distinct seasons. The air temperatures ranging from a minimum of 11.6°C to a maximum of 29.5°C in February and ranging from minimum of 1.5°C and a maximum of 12°C in the July. The highest recorded maximum was 40.7 °C in the month of February and the lowest recorded minimum was -7.8 °C in the month of June. Frosts can occur in Alpine between April and October.

On average there is 1178mm of rain per year with the winter months receiving approximately twice the summer rainfall. Generally August is the wettest month and February is the driest month. The highest rainfall recorded was 142mm in the month of August and the lowest recorded was 2mm of rainfall in the month of March. Climate projections indicate a hotter, drier future with increasing daily mean temperatures.

## 5 HOW HEATWAVES AFFECT THE ALPINE SHIRE

In January 2014, Victoria experienced a significant heatwave. In terms of intensity and duration it was similar to the extreme heat recorded in January 2009, where the Alpine Shire, along with the rest of Victoria, experienced temperatures among the highest ever recorded. The Chief Health Officer estimated that 374 additional deaths occurred state-wide during this heatwave. Our shire also experienced heat of unprecedented intensity and duration with maximum temperatures.

Research tells us that climate change is expected to increase the frequency and intensity of such heatwaves in our area. During the last decade, average temperatures in our region have been recorded as 0.5°C warmer than the 30 year (1961 to 1990) average. The future climate of our area is expected to be hotter and drier than it is today. By 2030, average annual temperatures will be around 0.9°C warmer and the number of hot days (days over 30°C) will continue to increase.

Statistics also show a decline in the region's rainfall over the past decade. Between 1998 and 2007, our average rainfall was 12% below the 1961 to 1990 average. There were 18 fewer rainy days recorded each year on average. It is predicted that the number of hot days will continue to increase and rainfall totals will continue to drop. As these predictions in relation to climate change are that extreme weather events will occur more frequently and severely in the years to come, we have a duty to ensure that all residents and services of Alpine are well prepared to protect the most vulnerable members of our communities during such events.

Alpine Shire's diverse landscapes and climate make it vulnerable to drought, bushfire and heatwave conditions. High temperatures in the Alpine area typically correspond to low humidity values because the prevailing winds originate from the dry inland parts of the state. While more humid conditions can exist when the air temperature is closer to 30°C and can provide some degree of discomfort, such days are not generally associated with heatwave conditions. As a result, for Alpine the air temperature alone can provide a reasonable measure of heat stress.

Very hot days are usually associated with hazardous fire weather conditions in the region. The fire threat is increased when thunderstorms develop causing lightning that provides the ignition for fires. This is particularly the case when thunderstorms cause little or no rain, as is sometimes the case in our shire. Following the bushfires of February 2009, Alpine Shire Council received funding from a number of State Government agencies to rebuild those communities affected by the fires.

The *Alpine Shire Council Heatwave Plan* is underpinned by the Alpine Shire Council *Climate Change Action Plan*. Alpine Shire Council also works in partnership with the North East Greenhouse Alliance, to reduce the scale of climate change and decrease its impact by adapting the built environment. The *Greenhouse Action Plan* was adopted by Council in 2009 and outlines Council's commitment to realising a 20% reduction target for greenhouse gas emissions on the 2005/2006 baseline data. Long term planning would seek Council to:

- Reduce emissions from its office and field operations;
- Reduce emissions associated with public assets and ensure infrastructure is adequate;
- Set an example within the community as a leader of sustainable practice; and
- Regulate land use and development to ensure the effects of climate change are considered in new developments.

## 6 HEATWAVE THRESHOLDS

The Alpine heatwave plan is activated by Council when temperatures forecast are likely to impact on the health of the community. The plan will be activated when a heatwave forecast by the BOM or when the Chief Health Officer issues a Heat Health Alert.

A **heatwave** is a complex phenomenon resulting from a certain combination of temperature, humidity, air movement and duration. Heatwaves can mean different things to different people, with thresholds changing according to demographic and geographic circumstances.

The Bureau of Meteorology (BOM) national definition of a heatwave is three or more days of unusually high maximum and minimum temperatures in any area. The forecast uses local climate averages, and examines how the temperatures have changed over the past 30 days.

A **Heat Health Alert** is issued by the Chief Health Officer on any day where forecast heatwave conditions are likely to impact on human health. Various heat or thermal comfort indices have been developed to evaluate heat-related stress combining air temperature and humidity, and in some cases, wind and direct sunlight.

In Alpine the “heat health temperature threshold” is set at a mean temperature of 32°C, over a 24-hour period, which is determined by calculating the daily maximum temperature and the overnight minimum and dividing them by two. An example of how this calculation made is:

<b>Tuesday</b>	<b>Wednesday</b>	<b>AVERAGE CALCULATION FOR TUESDAY</b> <b>(45 + 26) / 2 = 35.5°C</b>
Min: 23°C	Min: 26°C	
Max: 45°C	Max: 31°C	

With a threshold for the Alpine Shire of 32°C, the temperature forecast indicates that the threshold will be exceeded. This will result in a declared day of high heat.

The above calculation should be used to calculate the mean temperature of everyday within a seven day forecast which is available on the BOM website:

[www.bom.gov/weather/vic/maps/vic-forecast-map-7-day.shtml](http://www.bom.gov/weather/vic/maps/vic-forecast-map-7-day.shtml)

## 7 HOW HEATWAVES AFFECT OUR HEALTH

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

Heat related illness can make people feel uncomfortable, not so much because they feel hot, but rather because they sense how difficult it has become to lose body heat at the rate necessary to keep their inner body temperature close to 37°C. The body responds to this stress progressively through three stages.

STAGE	SYMPTOMS	WHAT TO DO
1 - Heat cramps	<b>Muscular pains and spasms in the abdomen, arms or legs.</b>	Stop activity and sit quietly in a cool place, increase fluid intake, rest a few hours before returning to activity, seek medical help if cramps persist.
	This is an early signal that the body is having trouble with the heat when the body gets depleted of salt and water	
2 – Heat exhaustion	<b>Cold, clammy and pale skin and sweating, rapid heart rate, muscle cramps, weakness, dizziness, headache, nausea, vomiting, fainting.</b>	Get the person to a cool area and lay them down, remove their outer clothing, wet their skin with cool water or wet cloths, seek medical advice.
	Blood flow to the skin increases, causing a decrease of flow to the vital organs. This results in mild shock. If not treated the victim may suffer heat stroke.	
3 – Heat stroke	<b>Same as heat exhaustion with – dry skin with no sweating, mental condition worsens, confusion, seizure, stroke-like symptoms or collapsing, unconsciousness.</b>	Call an ambulance immediately, get the person into a cool area and lay them down, remove their clothing, wet their skin with water, fanning continuously. Position an unconscious person on their side and clear their airway.
	<b>This is life threatening.</b> The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature may exceed 40.6°C potentially causing liver, kidney, muscle, heart, brain damage and death if the body is not cooled quickly.	

High temperatures are linked to:

- An increase in hospital admissions relating to heat stress, dehydration, or as a result of heat exacerbating existing conditions;
- Increased rates of certain crimes particularly those related to aggressive behaviour such as homicide;
- Increased number of work-related accidents and reduced work productivity; and
- Decreased sport's performance.

## Prevention

To help prevent the onset of a heat related illnesses, people in Alpine Shire are advised to:

- Carefully monitor the temperature and humidity outdoors, and plan activities and work hours accordingly by scheduling outdoor activities during cooler parts of the day;
- Stay in the shade or indoors in a cool location as much as possible;
- Drink plenty of water to replace fluids lost through sweating;
- Use a spray bottle to keep cool by misting;
- Wear lightweight loose-fitting and light-coloured clothing;
- Protect from the sun by wearing a hat and sunglasses, and using an umbrella;
- Avoid physical activities like sport, renovating and gardening; and
- Eat smaller meals more often and cold meals such as salads.

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

## 8 RECOMMENDED COOL AREAS

In the event of a heatwave it is recommended the public source cool areas. Easily accessible areas include public swimming pools, libraries, some community centres, local shopping areas. Council may identify and consider opening additional community spaces for people to attend to escape from the heat and may consider extending pool operating hours.

Recommended cool areas, including the local pool opening hours, will be advertised by the council through the council website, the local newspaper, radio and other social networks.

On high heat days, residents may elect to take a day trip to the nearest regional city, where there are places to stay out of the heat such as shopping centres, cinemas etc. and remain in touch with family and friends, especially, if this coincides with their decision to leave on days of high bushfire danger.

## 9 PEOPLE MOST AT-RISK TO HEATWAVE CONDITIONS

Although anyone can suffer from the effects of prolonged periods of heat at any time, some people are at greater risk than others. Those most vulnerable include the elderly, infants and young children, people with a disability, people with a pre-existing medical condition and people who are socially and economically disadvantaged. Other groups at risk to heat include people who are overweight, people who overexert during work or exercise and people confined to bed and unable to care for themselves. While the *Alpine Shire Heatwave Plan* plans for a whole-of-community response, it particularly considers “those aged above 65 years of age, children between 0 and 4 years of age, people with chronic disease, those with a disability, on medication or working outdoors, tourists and farmers.

### Our elderly

Elderly people in our community are more prone to heat stress for several reasons.

- Elderly people do not adjust as well as young people to sudden changes in temperature.
- They are more likely to have a chronic medical condition that upsets normal body responses to heat.
- They are more likely to take prescription medicines that impair the body's ability to regulate its temperature or that inhibit perspiration.

Alpine's population, like most parts of Australia, is ageing. Between 1996 and 2006, the numbers of people aged 65-and-over increased by 329 that is from 13.2% of the population in 1996 to 14.3% in 2006. This ageing trend is projected to continue, but at a higher rate as the baby boomers enter old age. Between 2006 and 2026 Alpine's population aged 65-and-over is projected to increase from 2,198 to 4,839. By 2026, 27.1% of the population is projected to be 65-and-over. The number of people aged over 85 is projected to double from 2006 to 2026 in our shire.

### Our young children

Young children are sensitive to the effects of high temperatures because they produce more metabolic heat than adults and rely on others to regulate their environments and provide adequate liquids. Their core temperature can rise quickly causing dehydration. We need to watch our children carefully in times of prolonged heat as they can succumb to heat illness in a very short period of time.

Although numbers are projected to fall in the next few years, we still have a significant share of families with young children in our shire. At present children aged 0 to 4 years comprise 5.48% of our total population. They are catered for by six Maternal and Child Health centres located across the shire and have access to a range of children's services including child care centres, family day care, kindergartens, preschools and playgroups.

### People with chronic disease

Virtually all chronic diseases present a risk of death/illness due to heat. The Alpine Shire has a high rate of some chronic diseases when compared with the rest of Victoria.

The leading main disease groups contributing to the burden of disease in Alpine Shire include:

- Cancer;
- Cardiovascular disease;
- Dementia; and,
- Diabetes.

Other groups with chronic disease at increased risk of illness and death associated with heat include people with mental illness. Dehydration can cause stress on the heart, known as cardiac stress.

The prevalence of chronic disease and modifiable chronic disease risk factors have increased over time, in conjunction with increases in life expectancy. As the population ages, the number of people with a chronic disease in the Alpine shire is expected to increase. This presents a significant challenge to the health system with important implications for the future health and wellbeing of the population in periods of extreme heat.

### People with a disability

Some people with a disability can be affected by heat because their body may not be able to regulate body temperature. This means the body may not be able to lose heat through skin by sweating or by having blood flow to the surface of the skin which helps the body to cool down. Also excess fat or wearing too many clothes can cause heat stress. Dehydration or not drinking enough water also can cause heat stress as there may not be enough fluid in the body to facilitate sweating.

A person with cognitive impairment, whether from disease or injury, may not be able to communicate distress or need for water. In some cases, they may not even “feel” the heat or discomfort because of changes in the brain’s abilities to process sensory information or regulate their body’s responses to heat.

### People on medication

Some medications increase the risk of heat stress. This varies according to the medication, for example:

- Antidepressants, antihistamines (allergy medicines), anticonvulsants (seizure medicines), phenothiazine and anticholinergics (used for some psychiatric conditions) act on an area of the brain that controls the skin’s ability to make sweat;
- Beta blockers and vasoconstrictors (heart tablets) reduce the ability of the heart and lungs to adapt to stresses including hot weather;
- Amphetamines (stimulants) raise the body’s temperature;
- Diuretics (fluid tablets) act on the kidneys and encourage fluid loss. This can quickly lead to dehydration in hot weather; and,
- Opioids and sedatives can reduce the person’s awareness of physical discomfort, which means symptoms of heat stress may be ignored.

## People who are outdoors

Many people in Alpine Shire work or play outdoors in hot conditions, irrespective of the weather. Air temperature, radiant temperature, air velocity, humidity, clothing and activity are recognised as factors that interact to determine heat stress. Anyone having to work or play outside in hot weather without appropriate protection, particularly if this involves heavy physical activity, is at increased risk of suffering health effects from heat. Therefore, certain occupational and sporting groups need to be informed about possible measures to prevent heat stress, how to recognise heat stress, heat exhaustion and heatstroke, and what to do. Effective management systems for ensuring the health and safety of workers and sports people (especially children) must be in place.

## Our tourists

In heat events, dehydration and heat stress can be a risk, particularly for non-acclimatised people. North East Victoria attracts 1.3 million domestic overnight visitors per annum, many of them in the summer months. Whilst the Alpine Shire is recognised as a great place to visit, as visitor numbers increase over summer, additional pressure can be placed on the capacity of health and safety services to meet the needs of visitors if they suffer from heat related illnesses. Simple messages need to be given to our tourists on very hot days such as:

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

## Our farmers

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

Agriculture contributes to the shire's economic base and employs around 550 persons. There are approximately 2,100 rural rated properties in the Alpine Shire, however, many are less than 200 hectares in area and are small, hobby farms. Some of these farming communities are situated in isolated geographic locations away from services and supports.

## Likely impacts

The risks for all vulnerable groups during heatwaves are dehydration and heat related illness. Particular concern during days of high heat are for those living alone and/or disconnected from services and networks, and increased workloads and stress levels for health service staff.

## 10 OTHER EFFECTS OF HEATWAVES

Extreme heat rarely occurs in isolation. Infrastructure failure or other natural emergencies can add another level of demand on a community and services. For example, power outages will impact on people's ability to run air-conditioners; bushfires will increase vulnerability by reducing air quality; and public transport disruptions will hinder people's ability to reach a cooler location.

### Energy

During a heat event, the demand for electricity can exceed the available supply and unplanned power outages may occur. Electricity distributors such as AusNet Services register addresses of power dependent people (life support customers). Customers who depend on electricity for life support equipment must have a back-up plan for loss of power and should inform their supplier during a power outage to ensure immediate relief is provided.

### Water

Heat events can cause an increase in the demand for water services, particularly drinking water. Concurrent risks can occur to distribution and treatment when power supply is also lost. Local water authorities put measures in place to ensure all agencies plan and are coordinated for an event by rescheduling of works, monitoring of water systems, repairing broken mains, and providing alternative water sites and alternative water supplies.

### Animals

Animals must be cared for in a heat event. The *Alpine Shire Municipal Emergency Animal Welfare Plan* outlines the responsibilities, interactions and activities provided to ensure animals are cared for during days and extended periods of high heat.

## 11 OUR PARTNERS

The Alpine Shire Council in partnership with the Emergency Management Commissioner (the Incident Control agency in a heatwave event) will provide key messages and important information on heatwaves, consistent with the Chief Health Officer's public health messages and communication resources to residents over the summer period. The council outlines how these messages are distributed, disseminated and worded in the *Heatwave Action Plan* – Appendix 2

Council is working alongside stakeholders from within the targeted sector groups in the Alpine community to act as key partners in the *Heatwave Plan*. We have partnered with government, private sector, service provider and community group organisations that represent especially our affected vulnerable communities of the very young, elderly, those with chronic disease, a disability, on medication or working outdoors, tourists and farmers. These partners include:

## ALPINE SHIRE PARTNERS

- Alpine Health Service
- Emergency Services - VicPol, SES, CFA, Ambulance Vic & RedCross
- Gateway Health
- Local Sporting Groups using Council facilities
- Local preschools, playgroups and childcare centres
- Department of Health and Human Services (DHHS)
- Department of Environment, Land , Water & Planning (DELWP)
- Educational Institutions
- Alpine Shire Council Customer Service Centre
- Bright Visitor Information Centre
- Myrtleford Visitor Information Centre
- Mt Beauty Visitor Information Centre
- Ausnet Services
- Identified vulnerable community groups – Senior citizens, U3A

### Partner's role in Heatwaves

Each of the key partners has an important role to play in the event of a declared heatwave. Their responsibilities are summarised in the action plan. Alpine Shire Council has consulted with stakeholders and identified four areas of priority considered by partners as crucial to the development of an effective heatwave plan. They include:

1. The formulation of localised plans and interventions based upon sound research and results of community consultation;
2. The targeting of vulnerable groups and the building of networks within the community; and
3. Health promotion and community education.
4. Encouraging resilience.

## 12 WHAT WE ARE GOING TO DO

To be better prepared for and responding to heatwave conditions during the summer months Alpine Shire Council is going to:

- Include heatwave preparation, response and recovery into existing municipal plans including the Business Continuity Plan;
- Make use of existing community registers;
- Promote the use of cool areas around the shire;
- Use community service organisations to support vulnerable populations;
- Engage in a communication and media campaign using heatwave messages consistent with Department of Health & Human Services materials; and
- Respond to state activated heat alert system in a planned and considered way.

## Our action plan

Our action plan is not just about responding to a pending heatwave; instead, it provides guidance all-year-round as we prepare our community in advance for very hot summers. Our actions then can be divided into three stages.

- **Stage One:** Pre summer preparation
- **Stage Two:** During summer prevention
- **Stage Three:** Heatwave response

Each stage is characterised by a set of key actions shown below:

<b>Stage One</b> <b>Pre summer preparation</b> <b>Sept 1 to October 31</b>	<ul style="list-style-type: none"><li>• Implement Heatwave Awareness Campaign (April to Nov)</li><li>• Identify vulnerable groups and update community registers</li><li>• Identify cool areas and access to water</li><li>• Engage key stakeholders</li></ul>
<b>Stage Two</b> <b>During summer prevention</b> <b>November 1 to March 31</b>	<ul style="list-style-type: none"><li>• Implement Heatwave Awareness Campaign (Dec to March)</li><li>• Advise key stakeholders of roles and responsibilities</li><li>• Identify cool areas for possible use</li><li>• Monitor Bureau Of Meteorology thresholds for Alpine Shire</li></ul>
<b>Stage Three</b> <b>Heatwave response</b>	<ul style="list-style-type: none"><li>• Alert key stakeholders to enact specific actions</li><li>• Ensure agencies supporting VPR are aware of activation</li><li>• Advertise cool areas</li><li>• Inform Emergency Management Team</li><li>• Monitor Bureau Of Meteorology reports</li><li>• Participate in Regional Emergency Management Team meetings as required</li></ul>

Further details of how these actions are enacted are found in Appendix 2 – *Heatwave Action Plan*.

## What we do in Stage 1

### Heatwave Awareness Campaign

Alpine Shire Council will use the key health messages recommended by the Department of Health & Human Services to prepare the general public and vulnerable groups in the community for the upcoming summer. The campaign will involve simple, specific tips around how to prevent and identify the symptoms of heat-related illness and provide advice on the appropriate actions to take if a person exhibits signs of a heat-related illness.

As older people and young children have been identified as a vulnerable group during heatwaves, messages and resources will be used to particularly target people 65 years or older and their carers; and parents with young children. Alpine Shire Council will use the electronic templates made available from the department and will distribute them through community services and organisations. A range of materials such as posters, brochures, drink bottles and fridge magnets will be made available during this time. It will be a stand-alone campaign so that mixed messages are not relayed.

### **Identify vulnerable groups and update community registers**

Support agencies who interact directly with vulnerable clients will be encouraged during Stage 1 to maintain, as part of their individual care and response plan, a community register within their organisation or group. The registers will provide an opportunity to share public health information about heatwaves and heat-related illnesses to those who have enrolled voluntarily. In the event of a declared heatwave, Council will phone support agencies for high risk people on the VPR, activate any known community phone trees and email databases to share the heatwave alert.

### **Identify cool areas**

During Stage 1, Council will seek out cool places across the shire where people can easily get to in the event of a heatwave. These areas could include swimming pools, air conditioned public spaces, school buildings, libraries, neighbourhood houses, community centres and shops.

### **Engage key stakeholders**

Successful implementation of our *Heatwave Plan* is dependent upon key stakeholders understanding their role in the event of a declared heatwave in the shire. Stakeholders will have different responsibilities according to the stage of the plan and context of the heatwave conditions. They will be reminded of these in Stage 1. Key stakeholders are encouraged to have their own heatwave plans where possible and appropriate.

### **What key stakeholders can do in Stage 1**

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

- Revisiting their actions from the previous summer and evaluate their levels of effectiveness;
- Meeting with other stakeholders to revise and amend key heatwave messages and actions;
- Updating their community registers;
- Participating in Council's Heatwave Awareness Campaign;
- Educating any staff of key heatwave messages; and
- Auditing client homes (if appropriate).

## What we do in Stage 2

Stage 2 includes a range of actions to further build resilience amongst Alpine Shire residents during the summer months. It directly involves the actions of most key stakeholders. This stage is implemented between November 1 and March 31 each year.

### Implement the Heatwave Awareness Campaign

The campaign will provide key heat/health messages to the community during this time via media releases, website news, Facebook pages. These may include:

<b>COOL YOUR HOME DOWN</b>	<ul style="list-style-type: none"><li>• Keep windows that are exposed to the sun closed during the day, and opened at night when the temperature has cooled</li><li>• Turn off non-essential lights and electrical equipment</li><li>• Move to the coolest room to sleep</li></ul>
<b>STAY OUT OF THE HEAT</b>	<ul style="list-style-type: none"><li>• Keep out of the sun during the hottest part of the day</li><li>• Avoid extreme physical exercise</li><li>• Wear light, loose fitting clothes</li><li>• Reschedule appointments to early morning</li></ul>
<b>KEEP YOURSELF COOL AND HYDRATED</b>	<ul style="list-style-type: none"><li>• Drink plenty of water; avoid caffeine/ alcohol</li><li>• Take a cool shower</li><li>• Spray water over your skin or clothing</li><li>• Keep a damp cloth on the back of your neck</li></ul>
<b>WHAT YOU CAN DO FOR OTHERS</b>	<ul style="list-style-type: none"><li>• Phone or visit elderly or sick neighbours</li><li>• Be aware of phone numbers you can ring to get help</li><li>• Know where cool areas are in the shire</li><li>• Never Leave anyone in the car</li></ul>

### Advise key stakeholders of roles and responsibilities

Council will contact key stakeholders, sporting bodies and summer event organisers to inform them of periods of heatwave.

### Organise cool areas for possible use

During Stage 2, Council will ensure that designated cool areas within the shire are ready for use in the event of a heatwave. Shire public pools will be informed of Stage 3 actions.

### Monitor Bureau of Meteorology thresholds for Alpine Shire

Alpine Shire Council will check Bureau of Meteorology reports daily for weather updates.

## What key stakeholders can do in Stage 2

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

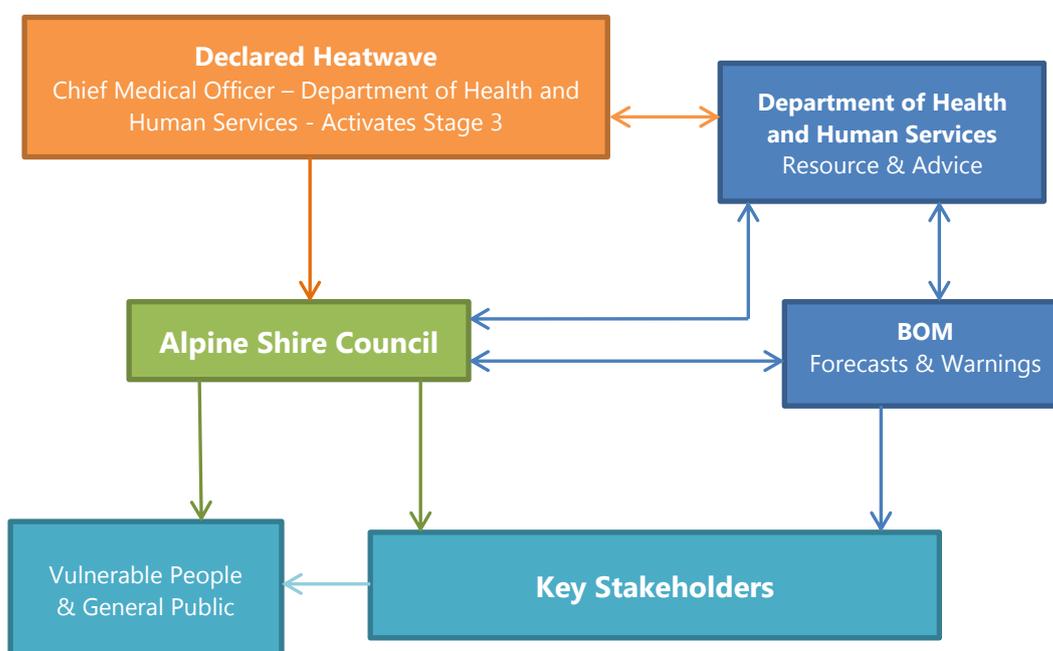
- Participating in Council's Heatwave Awareness Campaign;
- Identifying cool areas;
- Keeping in regular contact with vulnerable clients;
- Modifying client programs;
- Providing staff with access to extra water and cool clothing; and
- Rescheduling staff work hours.

## What we do in Stage 3

Stage 3 is triggered when imminent heatwave temperatures are predicted by the Bureau of Meteorology (BOM) for Alpine Shire. Council will know to move to this stage when it is notified by the Department of Health. Two staff members at Council, Emergency Management Coordinator and Manager Community Development & Services, will receive an email alert on the day when forecasted temperatures first exceed threshold levels. It will then be up to Council to continue to monitor forecast temperatures in our area and notify the relevant stakeholders to activate Stage 3 of this *Heatwave Plan*.

Efficient implementation of Stage 3 is dependent upon the lead agency, Alpine Shire Council, informing all key stakeholders of their responsibilities to enact Stage 3 of the *Heatwave Plan* via email, fax or telephone. The communication plan below will be followed to ensure this process is carried out smoothly and effectively.

### Communications Plan



During Stage 3, Alpine Shire Council's key responsibilities are to:

- Alert key stakeholders to enact their specific actions;
- Contact support agencies and key support person for high risk people on the VPR;
- Advertise cool areas and revisit pool opening and closure times;
- Monitor DHHS, BOM and EM-Cop Sit Rep reports daily;
- Consider changes to staff scheduling (particularly outdoor workers);
- Consider changes to any Council outdoor events; and
- Inform Council's Emergency Management Team.

Aspects of the *Municipal Emergency Management Plan* would be activated by Alpine Shire Council only in response to declared emergencies resulting from heatwave conditions. In this case, the Municipal Emergency Management Plan would be activated.

### What key stakeholders can do in Stage 3

Prompt action by stakeholders during Stage 3 will ensure the impacts of heat on the elderly, very young, tourists and farmers are kept to a minimum. Key stakeholders will be advised by Council to consider:

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

## 13 HOW WE EVALUATE THE PLAN'S EFFECTIVENESS

To ensure Alpine's *Heatwave Plan* remains relevant and meets the changing needs of our community, Council will review it annually after each summer and use any amendments to inform an updated *Heatwave Plan* every three years. All relevant stakeholders will actively participate in the evaluation. The following questions will be addressed.

- Were the actions in Stage 3 appropriate and timely?
- What worked?
- What didn't work?
- Was information communicated effectively to stakeholders?
- Was information communicated effectively to the general community?
- What could we do differently next summer?

The overall objective of the Heatwave Plan is to ensure that death and serious injury is prevented during a heatwave.

## 14 APPENDICES

### Appendix 1: Key heatwave terms

**Climate:** Climate summarises the average, range and variability of weather elements (rain, wind, temperature, fog, thunder and sunshine) observed over many years at a location or across an area. It includes the future expectation of long term weather, in the order of weeks, months or years ahead.

**Climate change:** Climate change is the change in average weather over time and over a region. Climate change includes changes in temperature, wind patterns and precipitation.

**El Niño:** El Niño refers to the extensive warming of the central and eastern Pacific that leads to a major shift in weather patterns across the Pacific. In Australia (particularly eastern Australia), El Niño events are associated with an increased probability of drier conditions.

**Global warming:** Human activities have caused the warming of the global climate over the last 150 years, accompanied by retreating alpine glaciers, rising sea levels and shifting climate zones. Scientists believe that global warming will lead to changes in wind patterns, precipitation and frequency and type of severe weather events. This, in turn, could have significant environmental and economic consequences.

**Greenhouse effect:** The greenhouse effect is a natural warming process of the earth. Without greenhouse gases, the earth's average surface temperature would be about 35 ° Celsius cooler. Scientists are concerned that higher greenhouse gas concentrations, resulting from human activity, will lead to an "enhanced" greenhouse effect which may lead to global climate change.

**Heatwave:** A heatwave is a period of abnormally hot weather lasting several days.

**Morbidity:** Morbidity is an incidence of ill health. It is measured in various ways, often by the probability that a randomly selected individual in a population at some date and location would become seriously ill in some period of time.

**Mortality:** A fatal outcome.

## Appendix 2: Heatwave action plan

STAGE	ACTION	HOW	WHEN	RESPONSIBLE PERSON
<b>Stage one</b>				
Pre-summer preparation Sept 1 to Oct 31	Review Heatwave Plan	Review heatwave plan and action plan	September	MRM, MERO & EMC
		Review heat health alert protocols for workplace supervisors and staff, and educate staff		All managers
	Review Department of Health and Human Services (DHHS) resources	Review DHHS website and update local stocks of resources accordingly	October	MRM, EMC & Communications
		Order any relevant resources		
	Implement Heatwave awareness	Distribute resources via email to key locations and stock heat health literature: <ul style="list-style-type: none"> <li>• Childcare centres</li> <li>• Maternal &amp; child health centres</li> <li>• Preschools</li> <li>• Visitor information centres</li> <li>• Libraries</li> <li>• Sporting facilities</li> <li>• Swimming pools</li> <li>• Senior citizens</li> <li>• U3A</li> <li>• Men's Sheds</li> <li>• NDIS services</li> </ul>	October	
Engage key partners	Council to advise stakeholders (identified in our partners) to revise and amend key heatwave messages and actions such as: <ul style="list-style-type: none"> <li>• Review their heat alert plans</li> <li>• Update their community registers</li> <li>• Pre-prepare key heat messages</li> <li>• Restock heat health information in</li> </ul>	Sept - Nov	MRM & EMC	

STAGE	ACTION	HOW	WHEN	RESPONSIBLE PERSON
		relevant places <ul style="list-style-type: none"> <li>Assist vulnerable persons to include heat health planning in personal emergency management plans</li> </ul>		
	Coordinate pre-prepared media releases (Sept-Nov)	Review and distributed media releases and pre-prepared key heat messages from DHHS or EMV Develop/review FAQ on council website	Sept - Nov	Communications Officer
	Identify vulnerable groups and update community register	Update Vulnerable Persons Register (VPR) Ensure all agencies with persons on the VPR are aware of heatwave information	Sept - Nov	MRM
	Identify Cool areas & water access	Council to identify and consider community spaces to promote to the general public as cool areas during the awareness campaign Spread keep cool messages <ul style="list-style-type: none"> <li>Seniors week celebrations</li> <li>Children's week</li> <li>Community noticeboards</li> <li>Alpine Shire website</li> <li>Facebook</li> </ul>	Sept - Nov	MRM  Communications Officer

STAGE	ACTION	HOW	WHEN	RESPONSIBLE PERSON
<b>Stage Two</b>				
During Summer prevention Nov 1 to Mar 31	Implement Heatwave Awareness Campaign (Nov-March)	Activate Council's Heatwave Awareness Campaign: <ul style="list-style-type: none"> <li>• Media releases</li> <li>• Identify spokesperson</li> </ul>	Nov - Mar	Communications Officer
	Advise key partners of roles and responsibilities	Advise key stakeholders to implement stage two of their plans	Nov	MEMP Committee and EMC
	Vulnerable People	Ensure all agencies with persons on VPR are alerted to predicted heatwaves	Nov	MRM
	Monitor BOM reports for Alpine Shire	Monitor BOM for daily weather updates and thresholds for Alpine	Nov - Mar	MRM
	Heat Health Alert		When Heat Health Alert issued	
		Reschedule relevant staff work hours		All managers

STAGE	ACTION	HOW	WHEN	RESPONSIBLE PERSON
<b>Stage three</b>				
Heatwave response. Activation of Plan	Establish communications	<ul style="list-style-type: none"> <li>MERO, MRM and MERC to establish communications</li> <li>MERO and/or MRM to participate in Regional Emergency Management Team meetings / teleconferences as required</li> </ul>		MERO
	Implement heatwave action plan following heat health alert trigger	<p>Council to advise all internal stakeholders to implement stage three of their heatwave plan. Including:</p> <ul style="list-style-type: none"> <li>Prioritising tasks</li> <li>Assessing risk for staff</li> <li>Rescheduling staff work times and hours</li> <li>Providing additional fluids for staff</li> <li>Modifying opening hours of any council cool relief places</li> <li>Consider changes to any council outdoor events</li> </ul>		MRM
	Vulnerable clients	<ul style="list-style-type: none"> <li>Ensure all agencies with persons on VPR are aware of Heatwave Alerts</li> <li>Alert key stakeholders with responsibility for vulnerable clients</li> <li>Ensure key person for those on VPR are aware of any Heatwave Alert.</li> </ul>		MRM & HACC & NDIS service providers
	Advise key partners to enact specific actions	<p>Council to advise all external stakeholders to implement stage three of their heatwave plan. This may include:</p> <ul style="list-style-type: none"> <li>Altering children's outdoor activities and playtimes</li> </ul>		MRM

STAGE	ACTION	HOW	WHEN	RESPONSIBLE PERSON
		<ul style="list-style-type: none"> <li>Altering or cancelling sports training and events</li> <li>Modifying client programs</li> </ul>		
	Promote Cool areas	See <b>Appendix 17</b> of <i>ASC MEMP</i> – Emergency Communications Plan		Communications Officer
	Inform emergency management team			MERO
	Monitor BOM EM-Cop and Health Alerts	Continue to monitor BOM for daily weather updates and thresholds for Alpine and messages from Chief Health Officer at DHHS.		MRM and Communications Officer
<b>Post event</b>				
Post heatwave	Evaluate	<ul style="list-style-type: none"> <li>Review</li> <li>Revise</li> <li>Replenish, restock heat health information in relevant places</li> </ul>		MERO, MRM, EMC & Communications