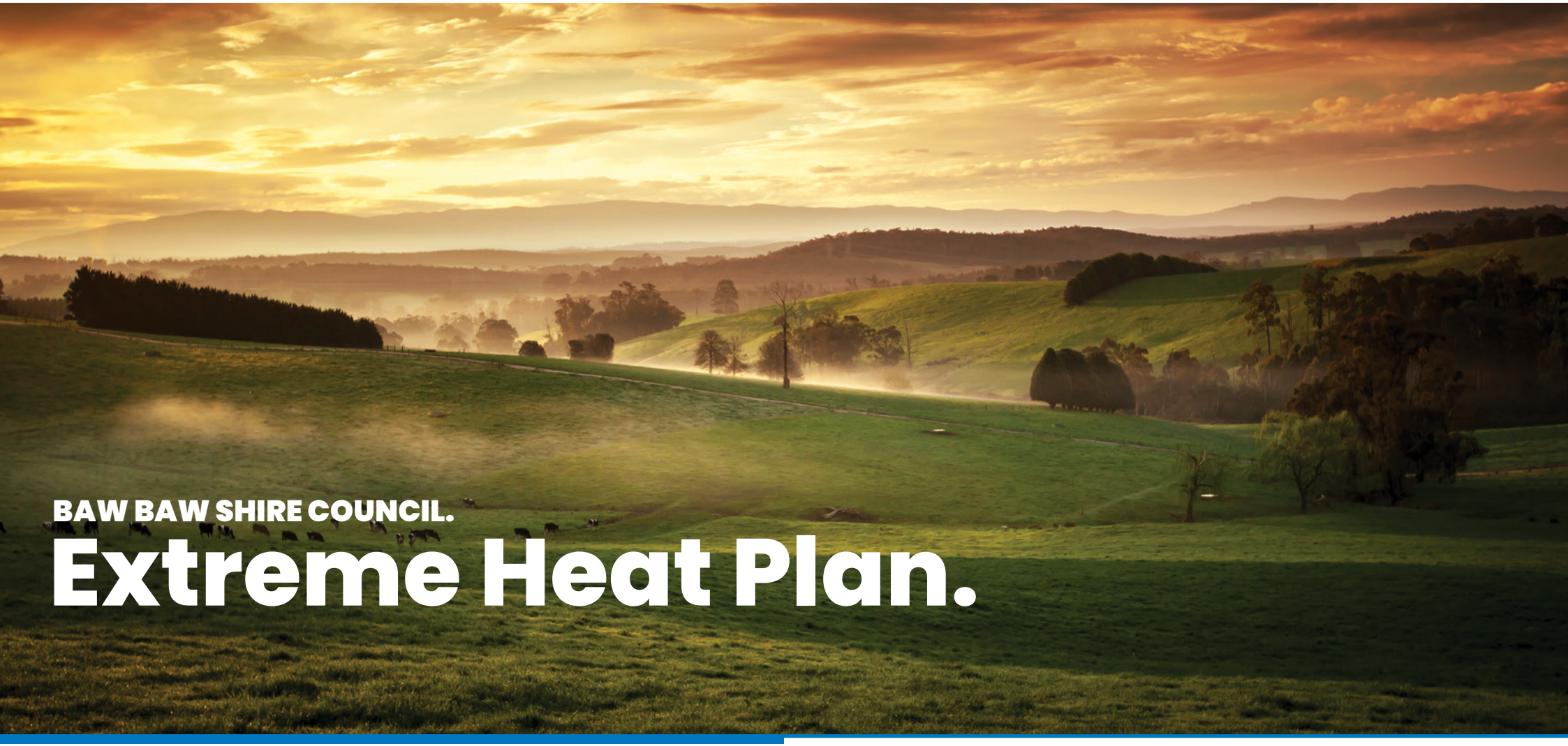


BAW BAW SHIRE COUNCIL.

Extreme Heat Plan.

Table of Contents.

THINGS YOU CAN DO.

STAGE 1: PG. 18	STAGE 2: PG. 20	STAGE 3: PG. 22	STAGE 1: PG. 24
All Year	Before an Event	During an Event	After an Event
AWARENESS	APPROACHING	ACTION	RECOVERY

Acknowledgement of Country.

The Baw Baw Emergency Management Planning Committee acknowledges the Bunurong and Gunaikurnai people as the Traditional Custodians of the land that encompasses the Baw Baw region.

We pay our respects to all the Aboriginal and Torres Strait Islander people living in Baw Baw and their Elders, past and present.

Objective.

This plan documents the agreed emergency management arrangements for mitigation, response and recovery; and defines the responsibilities of stakeholders at the Municipal level. It supports efficiency and effectiveness on a platform of shared responsibility and interoperability to deliver community centred outcomes.

Scope.

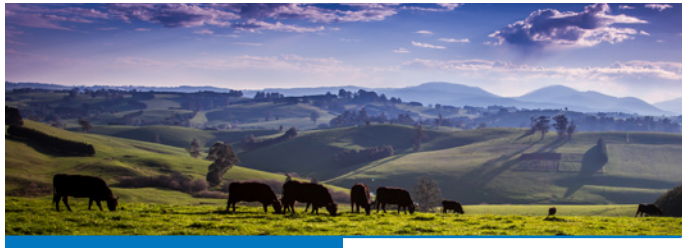
This plan supports holistic and coordinated emergency management arrangements within the municipality. It is consistent with and contextualises the State Emergency Management Plan (SEMP) and Regional Emergency Management Plan (REMP). The MEMP is a subordinate plan to the REMP. In addition to the SEMP and the REMP this Plan considers other municipal emergency management plans (MEMPs).

Plan Review.

To ensure the plan provides for a current integrated, coordinated and comprehensive approach to emergency management and is effective, it will be reviewed at least every three years. This Plan will be reviewed not later than July 2026.

An urgent update of this Plan is permitted if there is significant risk that life or property will be endangered if the plan is not updated (the EM Act 2013 s60AM). Urgent updates come into effect when published on the municipal council website and remain in force for a maximum period of three months.

This Plan is current at the time of publication and remains in effect until modified, superseded or withdrawn.



Shared Responsibility.

A commitment to shared responsibility recognises that no single person or agency can be responsible for emergency mitigation, preparedness, response or recovery. Individuals, communities, businesses, all levels of government and the not-for-profit sector have a role to play.

Shared responsibility supports more resilient communities that are engaged, informed and involved. Resilient communities recover more quickly and are better placed to respond to and recover from subsequent emergencies.

By sharing responsibility, we can minimise the impacts of emergencies and build safer communities. Victoria's shared responsibility approach recognises that communities:

- are best placed to understand and manage their own risks and drive preparedness, response and recovery, including through their fundamentally important volunteer contribution
- should be empowered with the information, capabilities and opportunities to make decisions and work with agencies for better Emergency Management outcomes
- have networks and relationships that help agencies and communities identify the risks that a community faces, assess the vulnerability of the community to those risks and identify options to protect the values of most importance to them.

By sharing responsibility, we can minimise the impacts of emergencies and build safer communities.

Shared Responsibility.

At an individual and household level residents and visitors should seek to mitigate emergency risk to themselves and others, support response activities by the emergency management sector, and meet their own relief and recovery needs where possible. Shared responsibility works best in practice when individuals and households:

BEFORE

- Find out about and stay aware of potential risks in your environment
- Take protective measures including having appropriate insurance
- Develop personal/family emergency plans to improve your safety and wellbeing during emergencies and keep them current and ready to implement immediately

DURING

- In the event of an emergency, be as self-reliant as possible: in the first instance, agencies will prioritise the most-vulnerable
- Act on emergency information and warnings and implement your plans as required to protect yourself, your families, neighbours, and your local community, in particular protecting people who are most vulnerable

AFTER

- Meet your own recovery needs wherever possible
- Review and improve personal/ family emergency plans

The MEMPC agencies will support the community to be more resilient through education and engagement activities that help people to better understand potential risks in their environment and how to plan for and recover from their impacts.

Extreme Heat.

Definition

The term "Extreme Heat Event" is used within this plan to include both "Heatwaves" as defined by the Bureau of Meteorology, and single days where the Chief Health Officer has issued a Heat Health Warning.

HEATWAVE WARNING:

Heatwaves are calculated using the forecast maximum and minimum temperatures over the next three days. This information is compared to what would be considered hot for that location, and to the observed temperatures over the last 30 days.[1]

Heatwaves are Low Intensity, Severe, or Extreme, and Heatwave Warnings are issued when 10% or more of a Weather District are forecast to be entering Severe or Extreme Heatwave conditions. Severe Heatwaves are likely to be challenging for vulnerable people, particularly those with medical conditions. Extreme Heatwaves are rare and will be a problem for everyone who does not take action to keep cool.

HEAT HEALTH WARNING

The Department of Health issues a Heat Health Warning using the BoM Severe and Extreme Heatwave Warnings. Additionally, the Chief Health Officer may issue a Heat Health Warning when there is a single day of very high temperatures.

[1] "Calculating the Heatwave forecast", Bureau of Meteorology: http://www.bom.gov.au/australia/heatwave/knowledge-centre/heatwave-service.shtml#:~:text=The%20heatwave%20service%20provides%20heatwave,conditions%20are%20heading%20your%20way.

History.

Using data taken from the Bureau of Meteorology[2] (maximum temperatures recorded at Nilma North (Warragul) daily from 2014), it can be seen that there have been on average 28 days per year recorded that reached 30°C or higher and 7 days per year that reached over 35°C.

The top 5 hottest days recorded at Nilma North (Warragul) were:

1. 25/01/2019 at 43.1°C
2. 13/01/2016 at 42.3°C
3. 4/01/2019 at 41.8°C
4. 31/01/2020 at 41.6°C
5. 17/01/2014 at 40.7°C

Black Saturday (7th February 2009) recorded a temperature of 43.2°C at Noojee Weather Station, which was decommissioned in 2012, and 46.3°C at the nearby Latrobe Valley Airport.

[2] Daily Maximum Temperature, Nilma North (Warragul), Bureau of Meteorology
https://reg.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=122&p_display_type=dailyDataFile&p_startYear=&p_c=&p_stn_num=085313

Community Emergency Risk Assessment.

The Municipal Emergency Management Planning Committee (MEMPC) participates in the CERA (Community Emergency Risk Assessment) workshop to identify, assess, and quantify local risks.[3]

The process calls on Subject Matter Exerts (SMEs) to present to the MEMPC on a specific hazard, then MEMPC vote on the

- Maximum Foreseeable Consequence (what is the worst that would happen)
- Mitigation / Control Effectiveness (what is currently in place to reduce the level of risk)
- Residual Consequence (what will happen, given the actions currently in place)
- Likelihood / Frequency (how often it will happen)

This data is then evaluated to provide a Residual Risk Rating, which is ranked either Low, Medium, High, or Extreme.

Extreme Temperature (Heat & Cold) was one of the risks identified in the 2023 risk assessment and was given the Residual Risk Rating of High (see Appendix C, CERA 2023 – Extreme Temperature for full details of the assessment of this risk).

[3] Additional information on the CERA process, VICSES, https://www.ses.vic.gov.au/about-us/emergency-management-training/community-emergency-risk-assessment-cera

Municipal Profile.

General Population

There are certain groups of people that are more at-risk of suffering in an Extreme Heat event; these groups of people are outlined below. The more groups that an individual falls into, the higher their risk.

The sections below outline the different at-risk groups, why they are at increased risk, and how this applies to Baw Baw Shire.

From 2016 to 2021, Baw Baw Shire's population increased by 9,137 people (18.8%). This represents an average annual population change of 3.51% per year over the period.

The vulnerable categories as listed here are not the only vulnerable people in an extreme heat event. The groups listed below are those that are most represented within Baw Baw Shire.

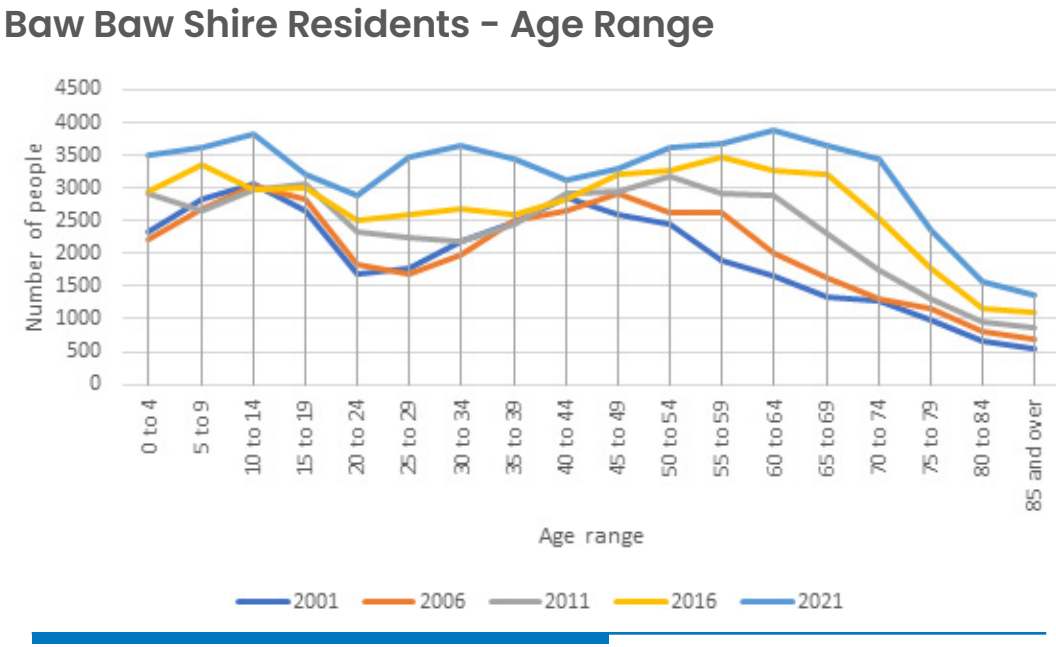


Figure 1: Total number of residents of Baw Baw Shire, grouped in 5-year age brackets [4]

[4] ABS Census data accessed through https://profile.id.com.au/baw-baw

POPULATION GROWTH FORECAST 2021 – 2041:

Baw Baw Shire's population is expected to continue growing over the next 20 years, leading to higher proportions of vulnerable residents.

Current forecasts estimate a total growth in population of 51.5% between 2021 and 2031.

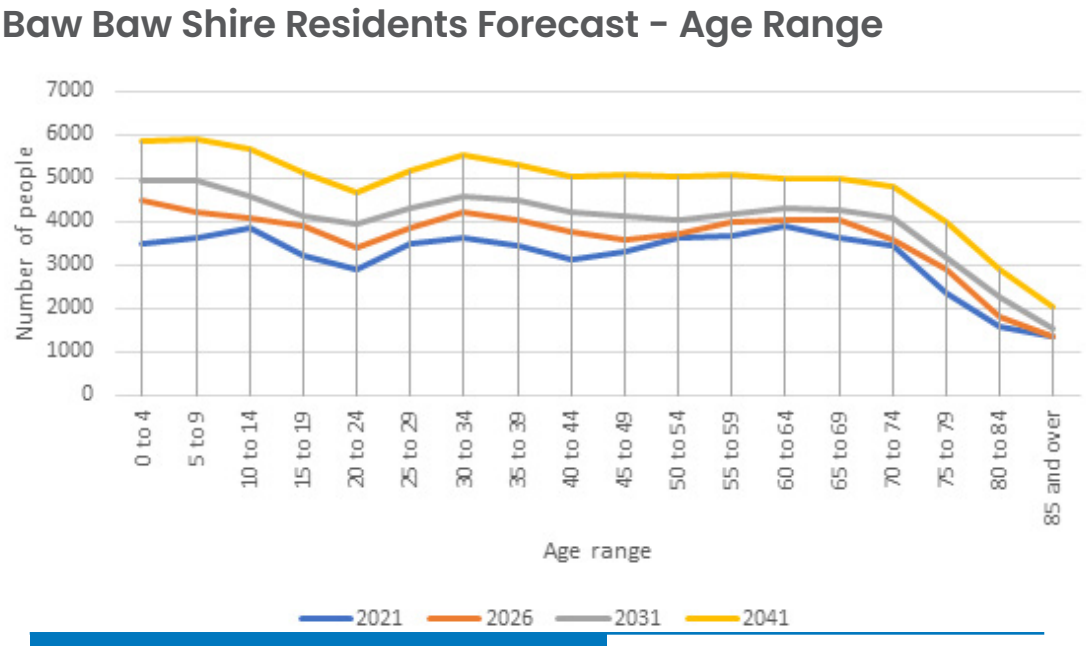


Figure 2: Forecast number of residents of Baw Baw Shire, grouped in 5-year age brackets [5]

[5] Forecast data accessed through https://profile.id.com.au/baw-baw

Immigration, Culture and Language.

WHY IS THIS A CONCERN?

People who choose to immigrate to Australia from cold climates may underestimate the effects of extreme heat on the body and not be as aware of the signs and symptoms of dehydration or heat stress/heat stroke. Cultures which have higher modesty standards of dress, or those which do not support conversations around health issues may also worsen effects of heat on the body. Finally, if English is not confidently spoken by all family members, most messaging around heat from forecasts to warnings and advice messages may be misunderstood or not understood.

IMMIGRATION, CULTURE AND LANGUAGE IN BAW BAW SHIRE

In the 2001 ABS census, 4,925 people (14% Baw Baw Shire population) stated that they had a birthplace other than Australia, and those people came from 68 listed countries (with 12 stating "other" and 1565 "not stated").

By the 2021 census, Baw Baw Shire boasts a total of 18% (10,403 people) of the population being born overseas, hailing from 97 different countries (of which 3,496 are "not stated" and 33 are "other").

From a planning perspective, there are 6,026 members of our community who speak languages other than English at home, and of those, 316 speak English not well or not at all. These people may struggle to access messaging and information that is not translated or accessible in pictorial form.

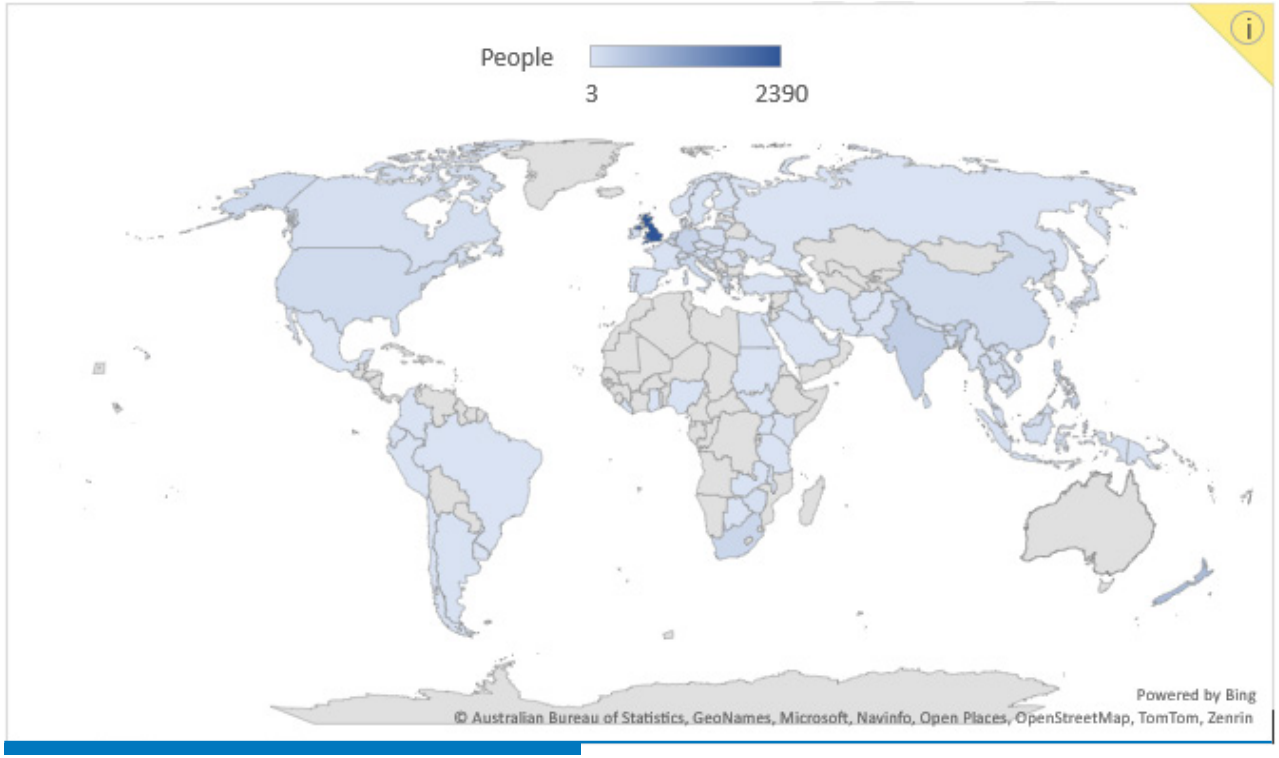


Figure 3: Map showing countries of birth for residents of Baw Baw Shire

Maternal and Child Population.

WHY IS THIS A CONCERN?

The effects of heat are strongly felt by pregnant women and those who are breastfeeding, and very young children. This is due to the body's ability to self-regulate temperature.

During pregnancy, a hot mother's blood vessels can narrow as she tries to cool herself down, which reduces the amount of blood and nutrients being passed to the baby. Pregnant and breastfeeding women are also more likely to experience dehydration due to the change in bodily functions and supporting the nutrition and hydration of the baby.

Babies and young children don't sweat as much as adults, which makes them higher risk of being affected by heat-related illnesses. They also do not have the same blood volume or hydration reserves as older children or adults, so a small change in hydration can cause large effects on their health.

MATERNAL AND CHILD POPULATION IN BAW BAW SHIRE

At the 2021 ABS Census, there were 3,507 children in the 0-4 age bracket, (6.1% Baw Baw Shire population). Based on the assumption that there are an additional 1/5 of that number of pregnant women, there are approximately 4,200 people (7.1% Baw Baw Shire population) in the Maternal and Child bracket. As can be seen in Figure 1, this is also a steadily increasing number of people.

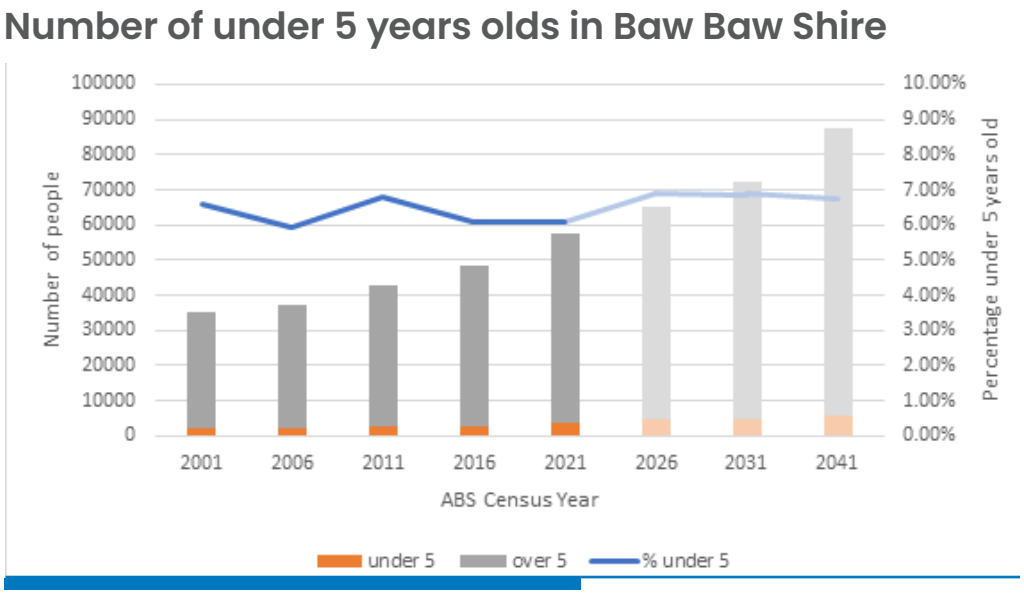


Figure 4: Age range for residents of Baw Baw Shire, under 5 & over 5

Aging Population.

WHY IS THIS A CONCERN?

People aged 65 and over are at greater risk of heat-related health issues as the body is less able to adjust to changes in temperature. Underlying medical conditions and the impacts of certain medications can make this worse. If this is also combined with other factors, such as lack of air conditioning and social isolation, the problem escalates.

AGING POPULATION IN BAW BAW SHIRE

Two of the largest changes in the age structure in this area between 2016 and 2021 were in the age groups Seniors (70 to 84) (+1,923 people) and Empty nesters and retirees (60 to 69) (+1,070 people), meaning that of the 9,137 additional people in Baw Baw Shire 2,993 (32.7%) were over the age of 60.

This also brings up the percentage of the population over 60 to 28% - up from 18% in 2016.

Whilst the forecasting is based on the rate of over-60s remaining at around 27 – 28%, it can be seen from the chart below that due to the rapid population increase over the next 20 years, the number of over-60s also rapidly increases.

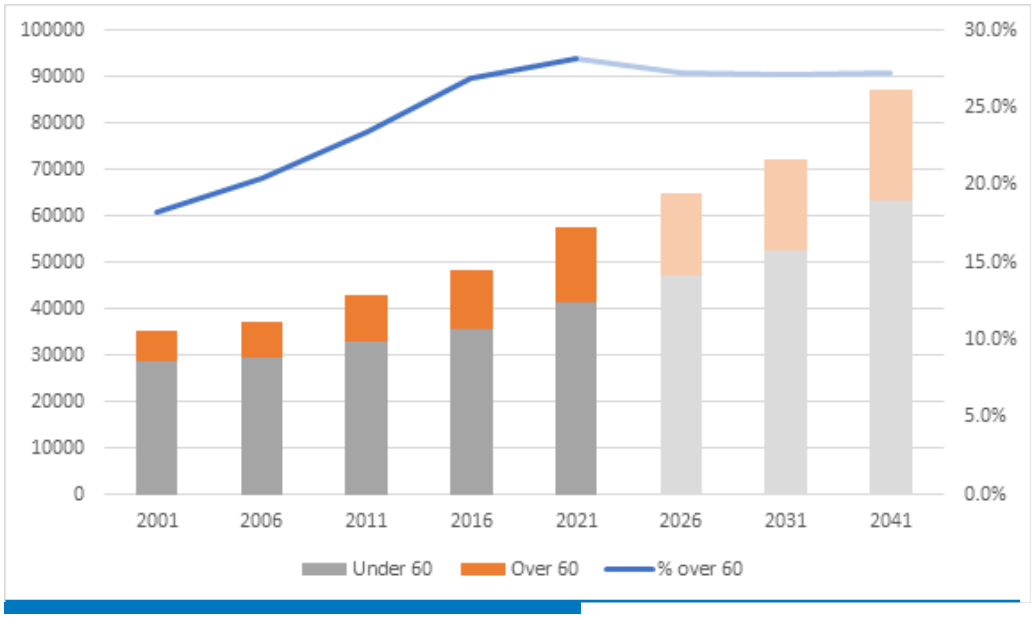


Figure 5: Age range for residents of Baw Baw Shire; under 60 & over 60

People with Disabilities.

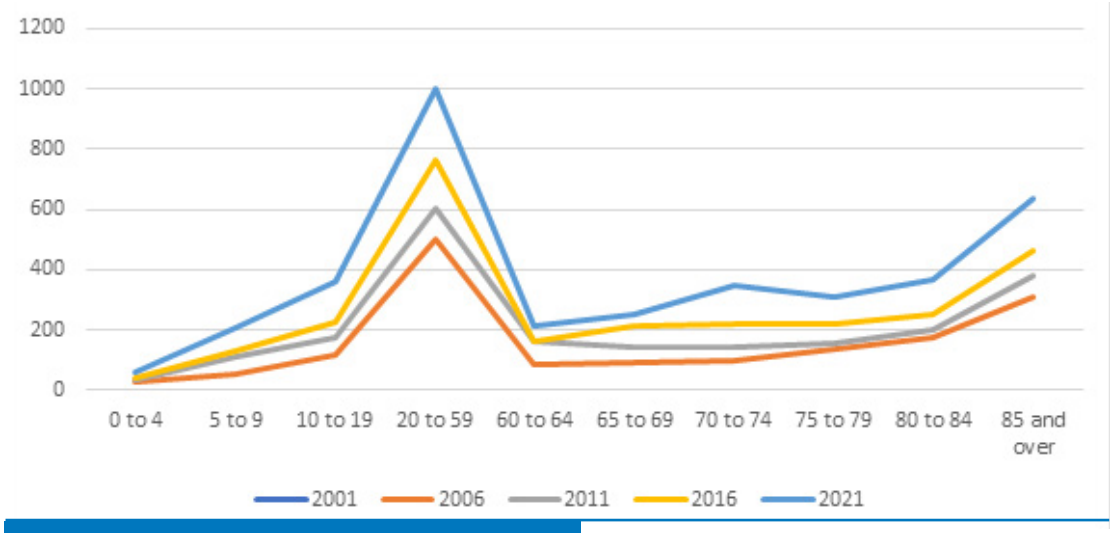
WHY IS THIS A CONCERN?

People who have physical disabilities have an enhanced risk in Extreme Heat events due to two potential factors. The first is that the disability, or medication that they are on, can worsen the effects of heat on the body, meaning that they can start to suffer from heat related illnesses at a lower temperature or quicker than someone who does not have a disability. They may also struggle to prevent or treat the effects of heat related illnesses, such as drinking extra water to avoid dehydration, due to physical limitations. Physical limitations also contribute to to the second factor; people who are physically disabled may not be able to move to a cooler space, or get more water, or carry out any of the other recommended actions for coping during an Extreme Heat event.

People with psychosocial disabilities may not understand warnings and what to do in the event of an Extreme Heat event. A change of routine may cause confusion and discomfort, and changes to food and drink, clothing, and location may all contribute to a person experiencing a more difficult time in hot weather conditions.

DISABILITY IN BAW BAW SHIRE

Baw Baw Shire Residents - those who require assistance with core activities



Homeless Population.

WHY IS THIS A CONCERN?

Whilst there is an acute awareness of hypothermia (being too cold), hyperthermia (being too hot) is also significant medical issue. People who are homeless and/or sleeping rough are especially vulnerable during a heatwave. Typically, access to cooling mechanisms are limited, with availability of air conditioning and drinking water very restricted. In addition, homeless living conditions may make heat conditions worse; living in tents or cars, sunburn and insect bites will all make an extreme heat event more unbearable if relief cannot be sought.

Digital Inclusion.

WHY IS THIS A CONCERN?

More and more of our communication and messaging is happening online, especially on social media. Certain groups of the community have a harder time accessing digital and online communications, and if all communications are online, those community sectors become isolated and unaware.

The Australian Digital Inclusion Index 2023[6] has found that whilst overall Digital Inclusion in Australia is steadily rising, along with Access and Affordability, there are still large gaps where First Nations people, people who live outside capital cities, people over 75 years old and people who did not complete secondary school have lower Access and Digital Abilities.

DIGITAL INCLUSION IN BAW BAW SHIRE

Baw Baw Shire's geographic location (outside a capital city), aging demographic (9% population over 75) and education level (56.3% of over-15 year olds have not completed Year 12 schooling) mark Baw Baw Shire as a region with a high risk of digitally excluded community. This is also shown in the results from the Australian Digital Inclusion Index, where Baw Baw Shire sits below the national average across all measures except affordability, though has significantly closed the gap in the last two years.

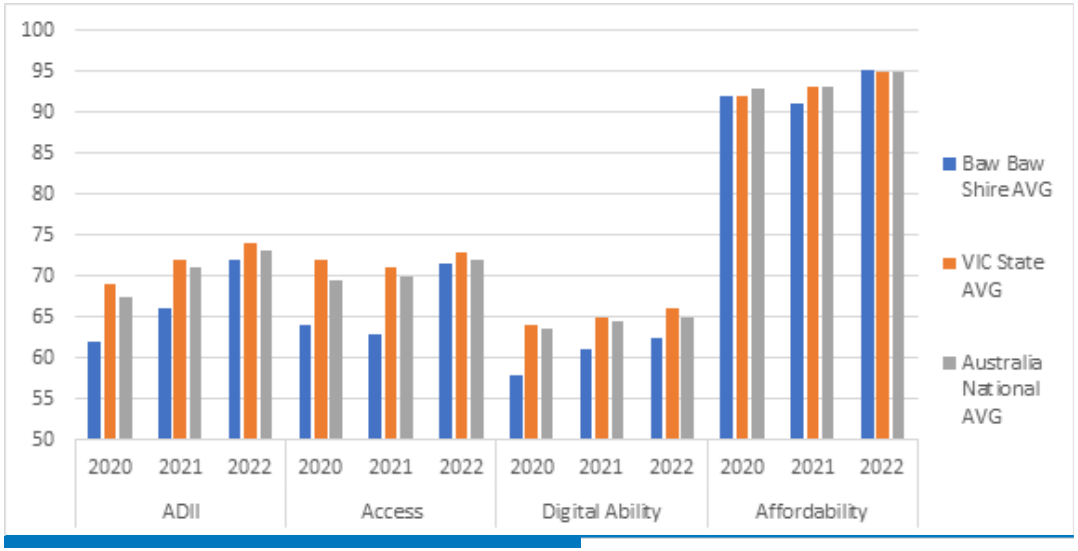


Figure 6: Digital Inclusion statistics

6 Thomas, J., McCosker, A., Parkinson, S., Hegarty, K., Featherstone, D., Kennedy, J., Holcombe-James, I., Ormond-Parker, L., & Ganley, L. (2023). Measuring Australia's Digital Divide: Australian Digital Inclusion Index: 2023. Melbourne: ARC Centre of Excellence for Automated Decision-Making and Society, RMIT University, Swinburne University of Technology, and Telstra.

Social and Economic Pressures.

WHY IS THIS A CONCERN?

As interest rates rise and the cost of living increases, there are rising pressures on household financials. Additional costs, such as running an air conditioning unit or going to a shopping mall on a hot day, may not be realistic expenses.

Temperature specific clothing (swimwear, lightweight shirts and shorts, sandals) may not be financially achievable for some households, especially where there are young and growing children, or where illness has changed a person's body shape.

SOCIAL AND ECONOMIC PRESSURE IN BAW BAW SHIRE

The median average wage in Victoria is $803, and the median household income is $1759 per week.

In Baw Baw Shire, 23,481 people (54.3% over 15 year old wage earners) earn less than $800 per week and 11,353 (56.5% of households) have an income of less than $1749 per week[7] . This means that Baw Baw Shire has a lower than average income, both for individuals and households.

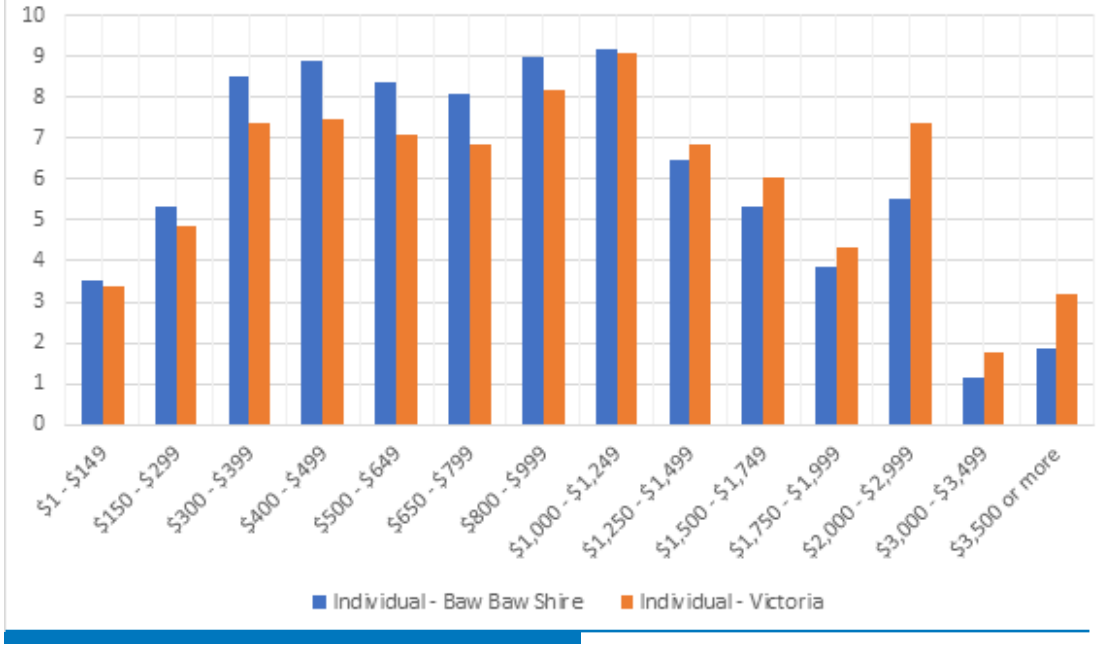


Figure 7: Individual's income, Baw Baw Shire vs Victoria

[7] https://www.abs.gov.au/census/find-census-data/quickstats/2021/2

Holiday Destination.

WHY IS THIS A CONCERN?

Tourists, by definition, will be away from home when visiting the area. Tourists on day trips may be trying to accomplish many activities, especially physical activities, with lesser regard for the weather conditions. This can lead to heat stress, heat exhaustion and dehydration. Those staying in the area longer are often campers, who will not have access to the cooling amenities that may be available at home, e.g. air conditioning and easily accessible drinking water. This is often combined with more relaxed attitudes around alcohol consumption, making risk of dehydration greater.

BAW BAW SHIRE AS A HOLIDAY DESTINATION

Baw Baw Shire is a popular tourist destination, particularly in the summer months. With a cost-of-living crisis, domestic tourism is booming and being filled with state and national parks and forests, campgrounds and rivers, the Baw Baw Shire area sees a high number of domestic tourists who can head to the area from Melbourne and suburbs for a day trip or weekend visit. Data from the Victorian State Government[8] shows that in the year ending June 2023, 4.3 million domestic (intra- and inter-state) visitors spent $933 million and 4.1 million nights in Gippsland. That demonstrates a 16% increase in visitor numbers compared to the year ending June 2022, a 24% increase in visitor spending and a 25% increase in number of nights spent.

[8] https://tourism.vic.gov.au/research-and-insights/domestic-research

Extreme Heat Event Planning.

Stage 1 – All Year (Awareness)

URBAN HEAT ISLAND EFFECT:

The Urban Heat Island (UHI) effect is where a large number of people, vehicles and buildings are all closely located. Each of these generate heat, and with a high density of people, vehicles and buildings are in a small area, it causes a localised build up of heat. In addition, materials such as concrete and asphalt hold heat, so a prolonged duration of hot days and nights can be made worse by roads and buildings holding that heat even longer.

The UHI effect can be minimised by the inclusion of green spaces in urban areas and by the planting of trees. Trees cast shade, reducing the absorption of heat by the surrounding buildings, roads and pavements, and all vegetation can reduce the local temperature through evaporation and transpiration (where plants release water vapour into the air through their leaves).

In the image below, you can see the detected temperature of a row of houses opposite some parkland. The hot, dark coloured roofs of the houses are red and white, giving temperature readings around 50 – 60C, whilst the trees and grasses are in light and dark blues, giving temperature readings of 20-25C.

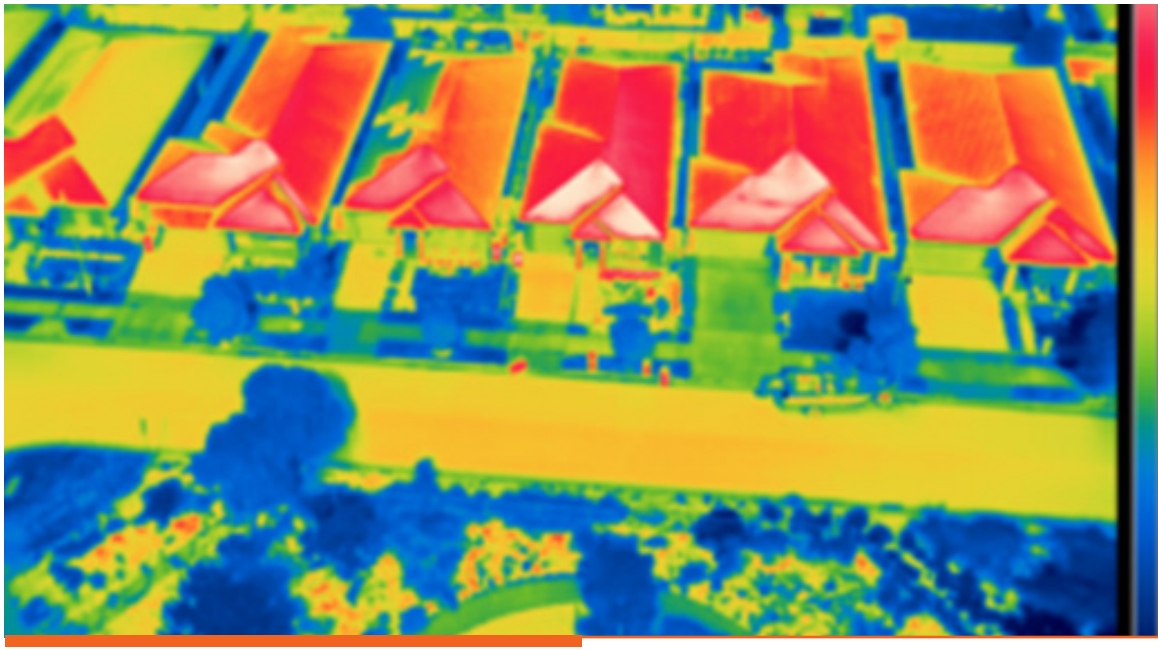


Figure 8: The summer 2019/20 temperatures in Jordan Springs, near Penrith, an area suffering from the urban heat island effect. Image: Dr Sebastian Pfautsch. [9]

[9] https://www.climatecouncil.org.au/urban-heat-island-effect-western-sydney/

PREPARE YOUR HOME:

There are many ways to prepare your home to be cooler on high heat days. Planting trees and vegetation can help reduce the effects of the Heat Island effect on your home, but other ways to provide shade are also productive. Reflective coatings, insulation, glazing, external awnings or blinds and shade sails are all ways to reduce the sunlight from entering the home and reducing the temperature inside. Even closing heavy curtains and blinds, or hanging blankets inside the window helps, though it is better to stop the light outside, before it comes through the glass.

Air conditioners are also excellent ways to cool your home, however these can be expensive to run and do not work in a power outage. To ensure they are always working as efficiently as possible, they should be maintained and serviced at regular intervals.

Stage 2 - Before an Event (Approaching).

HEATWAVE WARNINGS:

Heatwave warnings are issued:

- By Bureau of Meteorology between October and March
- For Severe and Extreme Heatwaves
- When 10% or more of the weather district is impacted

HEAT HEALTH WARNINGS:

Heat Health Warnings are issued:

- By the Department of Health and/or
- By the Chief Health Officer

And may relate to

- Forecast temperatures that might impact human health
- One or more days of extreme temperatures are forecast
- If a large population centre or mass gathering will be impacted.

PREPARING FOR EXTREME HEAT:

- Have your air conditioning unit serviced in advance
- Check with your doctor to see if changes to your medications are needed.
- Stock up on food, water, and medicines so that you don't have to go outside in the heat
  - Ensure that food and medications are stored at the correct temperatures.
- Keep up to date with the weather forecasts and any warnings.
  - Follow weather forecasts on TV or Radio
  - Check the Bureau of Meteorology heatwave forecast online or via their app,
  - Subscribe to receive Heat health warnings from the Department of Health
  - Download the VicEmergency App and turn on notifications
  - Cancel or reschedule non-essential outings

PREPARING FOR POWER FAILURE

Power failures can happen during times of extreme heat, when the heat is affecting the efficiency of power stations and potentially causing damage to power infrastructure. In addition to that, there is excess load on the grid, with many air conditioning units drawing a lot of power, causing brownouts (interrupted service and voltage drop) and blackouts (loss of power). It is wise to prepare for power failure during a period of extreme heat.

- Ensure you have a torch, fully charged mobile phone, a battery operated radio and some spare batteries.
- Stock up on food items that do not require refrigeration or cooking such as tinned fruit and vegetables, tinned meats or fish, bread, and fruit.
- Have a cool box and ice packs available to keep medications at the appropriate temperature
- Have plenty of drinking water available.
- Consider a battery-operated or handheld fan to assist with cooling.

Stage 3 – During an Event (Action).

The Better Heath Channel[10] has a section dedicated to tips and tricks to combat the effects of extreme heat (staying safe in extreme heat[11]).

KEEP COOL:

- Use air conditioning if available. The cost of air-conditioning can be reduced by using a fan at the same time, and increasing the thermostat temperature on your AC unit to 26-27˚C.
- Electric fans can help cool the body when the indoor temperature is below 39-40˚C.
- Keep your skin wet using a spray bottle or damp sponge.
- Soak a towel in cool tap water and wrap it loosely around your head.
- Take cool showers or foot baths with cool tap water.
- Wrap ice cubes in a damp towel and drape around your neck.
- Wear light and loose-fitting clothing.
- Consider visiting an air-conditioned building such as a shopping centre or public library.
- Use blinds or curtains to block sun from shining directly through windows.
- Open windows and doors if you think it is hotter indoors than outdoors.
- NEVER LEAVE CHILDREN AND PETS IN HOT CARS.

CHECK IN WITH OTHERS:

- A quick call can make a big difference.
- Let family, friends and neighbours know you are OK
- Check in with those at increased risk or who may need your support during days of extreme heat.

10 https://www.betterhealth.vic.gov.au/extreme-heat

11 https://www.betterhealth.vic.gov.au/health/healthyliving/how-to-cope-and-stay-safe-in-extreme-heat

STAY HYDRATED:

- During days when you are exposed to extreme heat, keep drinking water before you feel thirsty, especially if outdoors and performing physical activity. If your doctor has asked that you limit your fluid intake, ask them how much water you should drink during hot weather.
- Whenever you leave home, always take a water bottle with you.
- Watch for signs of dehydration
  - feeling thirsty
  - lightheaded
  - having a dry mouth
  - tiredness
  - having dark-coloured, strong-smelling urine
  - passing less urine than usual.

POWER FAILURE:

If there is a power outage:

- Close the fridge and freezer doors. Only open them when necessary and don't have them open for long.
- Use battery powered fans or water-soaked towels to stay cool
- Consider relocating to somewhere that has backup power or is unaffected by the power outage

Stage 4 – After an Event (Recovery).

HEALTH:

- Continue to monitor hydration
- Continue to observe for signs of heat related illness, these can still present for several days following a prolonged extreme heat event

POWER FAILURE – FOOD SAFETY AFTER A POWER OUTAGE

- Once cold or frozen food is no longer cold to touch, it can be kept and eaten for up to 4 hours and then it must be thrown away.
- Throw out high-risk food left in the temperature danger zone (between 5 °C and 60 °C) for more than 4 hours - don't put it in the fridge and don't keep it for later.
- If it is raw meat, it should be cooked and eaten.
- Eat hot food within 4 hours of it being heated or throw it away.
- If power is restored when frozen food is still frozen solid the food is safe. Your fridge temperature should be at 5 °C or below. The freezer temperature should be below -15 °C. Use a thermometer to check the temperature in your fridge.
- Avoid refreezing thawed food. Food that is frozen a second time is likely to have higher levels of food poisoning bacteria. The risk depends on the condition of the food when frozen, and how the food is handled between thawing and refreezing. Raw food should never be refrozen once thawed.
- Take special care with high-risk foods
- Food poisoning bacteria can grow and multiply on some types of food more easily than others. High-risk foods include:
  - raw and cooked meat - such as chicken and minced meat, and foods containing them, such as casseroles, curries and lasagne
  - dairy products - such as custard and dairy-based desserts like custard tarts and cheesecake
  - eggs and egg products - such as mousse
  - smallgoods - such as ham and salami
  - seafood - such as seafood salad, patties, fish balls, stews containing seafood and fish stock
  - cooked rice and pasta
  - prepared salads - such as coleslaws, pasta salads & rice salads
  - prepared fruit salads
  - ready-to-eat foods - such as sandwiches, rolls, and pizzas that contain any of the food above.
  - Food that comes in packages, cans & jars can become high-risk foods once opened, and should be handled and stored correctly.

Appendix A: Baw Baw Municipal Emergency Management Committee

Baw Baw Municipal Emergency Management Committee is a working group made up of emergency response agencies and emergency management representatives across the Shire.

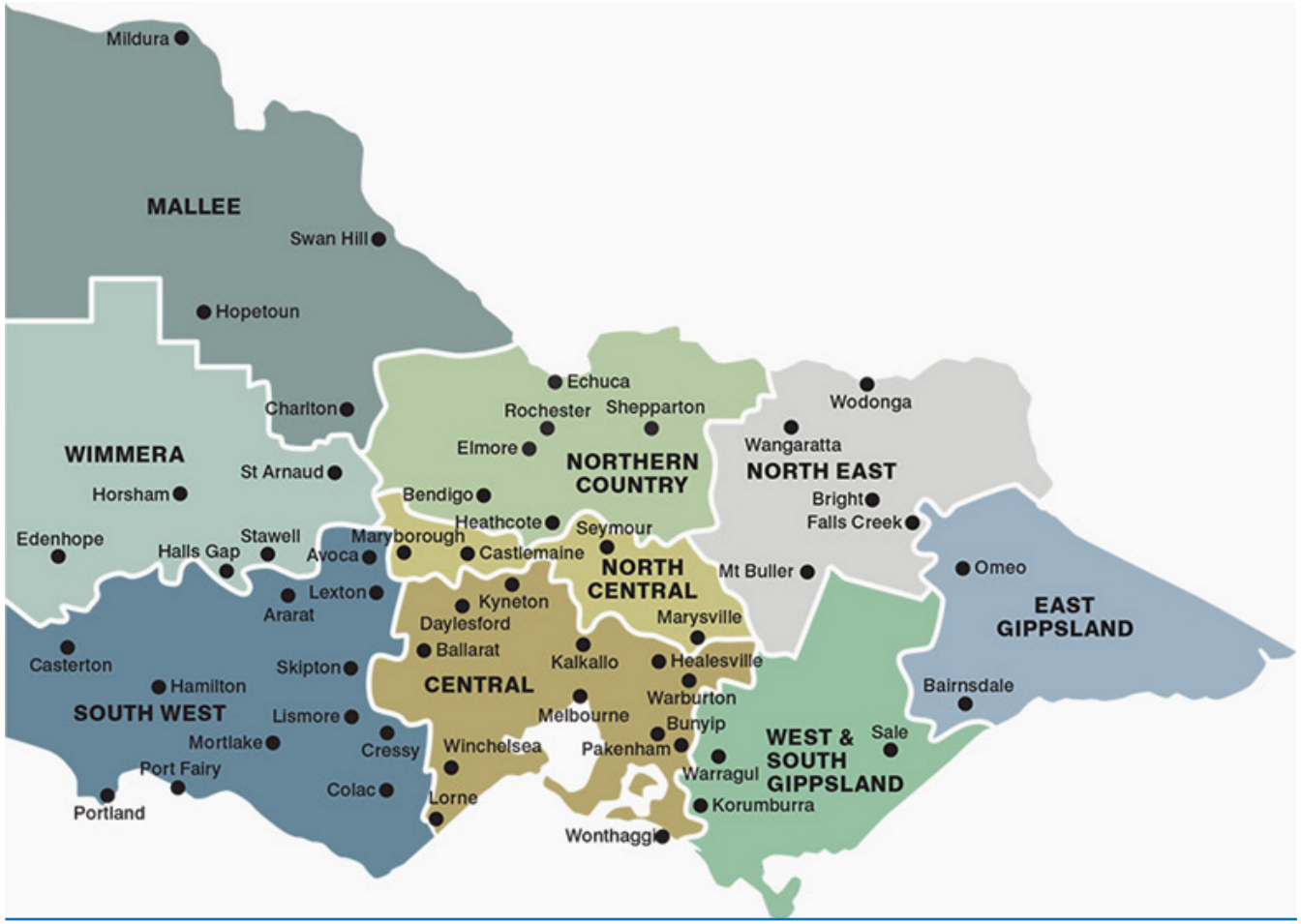
It is comprised of representatives from the following agencies:

- BBSC (Baw Baw Shire Council) (Chair)
- VicSES (Victoria State Emergency Service)
- DE (Department of Education)
- AusNet Services
- CFA (Country Fire Authority)
- VCC-EM (Victorian Council of Churches – Emergency Ministry)
- DH (Department of Health)
- AgVic (Agriculture Victoria)
- FRV (Fire Rescue Victoria)
- DFFH (Department of Families, Fairness and Housing)
- VicPol (Victoria Police)
- ARC (Australian Red Cross)
- ARV (Alpine Resorts Victoria)
- AV (Ambulance Victoria)
- RRV (Regional Roads Victoria)
- FFMVic (Forest Fire Management Victoria)
- Councillor Representative for Community

Appendix B: Victoria Weather Districts

Victoria is split up into 9 weather districts; Baw Baw Shire is located entirely within the West and South Gippsland Weather District. It's important to know not just which weather district you live in, but which district you are in when you are travelling or holidaying around the state, as weather warnings are issued for each district independently.

The weather districts are used for issuing fire danger warnings as well as storm, flood, wind and heat warnings, so it is important to ensure that you are aware.



Appendix C: CERA 2023 – Extreme Temperature.

HAZARD: EXTREME TEMPERATURES (HEAT AND COLD)

Review date: 2026-06-20

HAZARD DESCRIPTION

Rising temperatures and more frequent intense periods of heat are forecast to be a part of Victoria's climate. Extreme temperatures have a cumulative effect on community, infrastructure and services, with a single day of extreme heat maybe having an impact and this impact can escalate with successive days of similar temperatures and even continue after temperatures have abated. An extended duration of extreme heat 'a Heatwave;' can have a significant impact on human health, flora and fauna, critical infrastructure (including power, transport, water) and services.

RATIONALE

As demonstrated in the January 2009 and 2014 heatwaves in Victoria, extreme heat can exacerbate existing medical conditions and cause heat-related illness which may be fatal. There were an estimated 374 excess deaths in 2009 and 167 in 2014. Key findings of the chief health officer's report on the January 2009 Victorian heatwave. The report found there was:

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

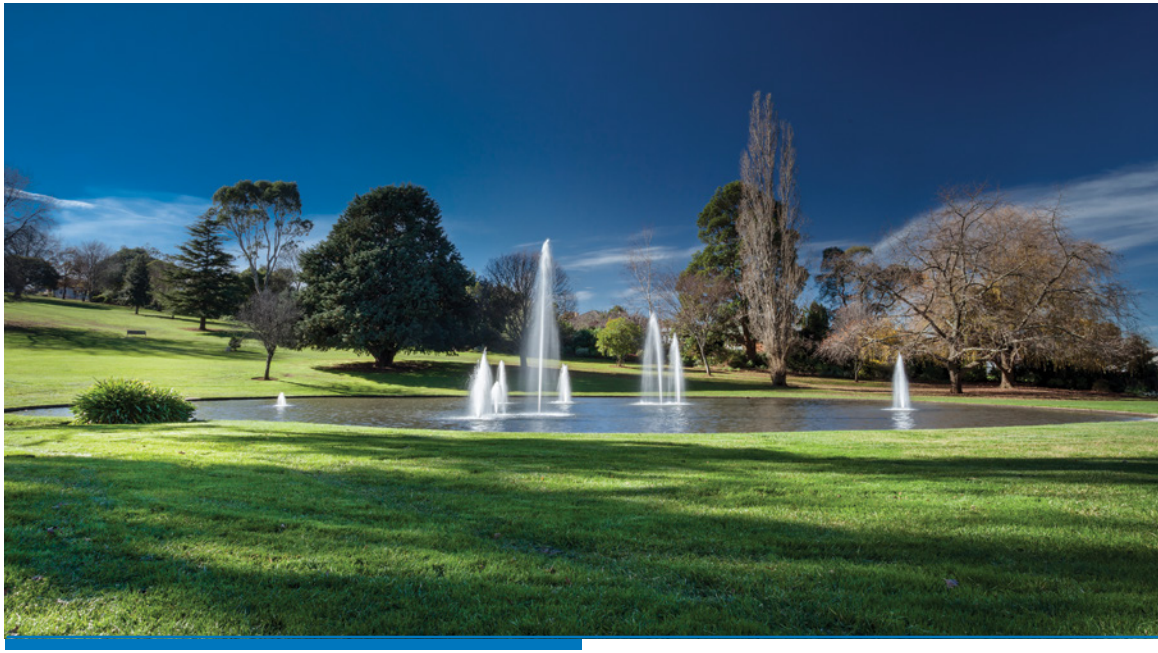
Confidence in Risk Rating.	MEDIUM
Residual Risk Rating.	HIGH
Maximum Foreseeable Consequence	3.7
Mitigation / Control Effectiveness	2.67
Residual Consequence	3
Likelihood / Frequency	4.23

Appendix D: Where to go?

FOR COOL AND SHADE

Parks and playgrounds offer shade and green spaces as well as entertainment. Grass, trees and water features like fountains all help to cool an area down, unlike bricks, concrete and ashphalt which make areas hotter.

There are numerous parks and playgrounds in Baw Baw Shire, you can find your nearest by visiting:
https://www.bawbawshire.vic.gov.au/Near-Me



FOR SWIMMING

Warragul Leisure Centre
21 Burke Street, Warragul

Drouin Outdoor Pool
via Sinclair St, Drouin

Neerim South Outdoor Pool
via Swaffields Lane, Neerim South

Trafalgar Outdoor Pool
via McGregor Park Lane, Trafalgar

Thorpdale Outdoor Pool,
via Morwell Road, Thorpdale

Rawson Indoor Pool
via Knotts Siding Road, Rawson

For more information.

FOR COOL AND SHADE

The VicEmergency app is available for Apple and Android phones, and on the internet. VicEmergency can also be found on social media platforms, such as Facebook.
www.emergency.vic.gov.au

The Bureau of Meteorology has an app for Apple and Android phones, and can be found on the internet. The Bureau also has pages on social media.
www.bom.gov.au

The Victoria Department of Health has a website, and pages on social media. The Victoria Chief Health Officer, who issues Heat Health Alerts, can also be found on social media.
www.health.vic.gov.au/environmental-health/extreme-heat-and-heatwaves

Appendix E: Water Safety.[12]

Eight fatal drownings were recorded as a result of the flooding or heatwave conditions seen in Victoria: the highest number of extreme weather-related drownings on record.[13]

E.1 Parents supervise, lifeguards save lives.

Your local public pool is a great place for the whole family to swim and participate in water programs.

- Lifeguards provide professional supervision for all pool users – parents/ carers still need to watch their own children around the water.
- Children under five should be within arm's reach at all times; children under 10 should always be in your sight.
- Ensure your children learn to swim – enrol them in a swimming and water safety program at your local pool.

E.2 Inland Waterways

Inland waterways, including rivers, creeks, lakes and dams are great for water recreation, but it is important to remember they have many hidden dangers, such as submerged objects, debris and strong currents.

Royal Life Saving recommends the following four safety tips for rivers:

- Wear a lifejacket.
- Avoid alcohol around water.
- Never swim alone.
- Learn how to save a life.

E.3 Rural properties

A 'child safe play area' can be used to restrict children's access to water that you cannot fence on rural properties.

- Fill in unused holes where water can gather.
- Securely cover water storage such as wells and tanks.
- Ensure all gates on your property are closed.

12 https://www.vic.gov.au/water-safety

13 LSV Drowning Report 2022-23, https://lsv.com.au/LSV-Drowning-Report-2022-23/index.html