



# Your Council and Climate Change

UNDERSTANDING THE RISKS AND LEARNING TO ADAPT

Climate Change impacts on council

Training for Victorian councillors,  
supported by DELWP and  
developed in partnership with





Climate related hazards are already impacting councils and the risks are expected to increase in the future.

Climate change poses a risk to core council services, assets and your community

Councils need to act on climate change.

As we touched on in the introduction slides, climate change impacts a number of areas of council responsibility. We'll go through these and highlight some of the main impacts with examples.

## Planning & building

- Statutory Planning
- Strategic Planning
- Urban Design
- Environmentally Sustainable Design referrals
- Building Surveying



Planning is a key area in which Council can support the community through the impacts of climate change.

More than half of Victorians live in housing that gets too cold during winter and too hot during summer. Improving quality of housing can be addressed through the planning system.

(Sustainability Victoria (2020) *Linking Climate Change and Health Impacts*, accessed 16.12.20, available at: <https://www.sustainability.vic.gov.au/About-us/Research/Health-and-Climate-Change-Research>)

It is important that land use and development corresponds with risks, particularly for extreme weather events such as flood and fire.

For example, it might be appropriate to have a park in a flood plain, but not an aged care home with residents who might be vulnerable in an emergency event.

Councils can also utilise land-use planning through urban design and requirements for environmentally sustainable design.

For example, to reduce urban heat, councils can introduce controls related to tree provision in new developments. Rain and stormwater gardens can be installed to lessen the impacts of stormwater runoff.

Capturing and reusing stormwater also helps in irrigating street trees and passive and active open space.

Strategic precinct planning can minimise emissions and reduce urban heat creation in new developments.

Councils also have a role to play incentivising home and building owners to use onsite renewable energy such as solar panels.

Resources may also be impacted if more planning decisions get taken to VCAT if councils don't understand and factor in future projections for flood mapping and coastal erosion in planning policies and when issuing permits to developments.

As the climate changes, your council's resourcing needs might change. For instance, as flood and fire risk become more widespread, there might be additional work for municipal building surveyors.

It is essential that planning needs to be informed on new, up-to-date climate science where available, rather than historical data.

## Health & community services

- Public health
- Environmental health
- Maternal and child health
- Immunisation programs
- Family and youth services
- Aged and disability services



Climate change will have direct and indirect impacts on all aspects of the health and community services your council provides.

Council plays an important role in identifying and preparing for **public health** impacts of climate change through the Municipal Public Health and Wellbeing Plan.

Council also has a role in **environmental health** through infectious disease control, food safety, and advice for disease-carrying pests such as mosquitoes. Climate change will indirectly impact all of these aspects of environmental health.<sup>1</sup>

For example, between Oct 2016 and Apr 2017, Victoria experienced a large Ross River virus outbreak, with almost 2,000 cases reported. Ross River virus is distributed by insects such as mosquitos. Increased instances of flooding and warmer conditions makes it very likely that outbreaks of Ross River and other insect-spread diseases will increase.<sup>2</sup>

Council also needs to consider how climate change might impact **maternal and child health care and family and youth services**.<sup>3</sup>

During the 2014 heatwave, Hobsons Bay City Council observed a spike in clients cancelling services for up to six days following the heatwave.<sup>4</sup> You'll need to consider how safe and comfortable residents are in accessing services during events such as heatwaves and how else your council could offer services.

**Older people** may suffer more during heat events and be more isolated during other extreme events and need more support. During the week of the January 2014 heatwave, 621 people went to hospital emergency departments due to heat. This was five times more than expected for that period. Forty per cent of those people were 75 or older.<sup>5</sup>

### References

1. Victorian Government (2015) 'Guide to councils,' accessed 5 Nov 2020, available at: <https://knowyourcouncil.vic.gov.au/guide-to-councils/what-councils-do>
2. DHHS (2020), *Tackling climate change and its impacts on health through public health and wellbeing planning: Guidance for local government 2020*, Victorian Government, Melbourne.
3. Victorian Government (2015) 'Guide to councils,' accessed 5 Nov 2020, available at: <https://knowyourcouncil.vic.gov.au/guide-to-councils/what-councils-do>
4. How Well Are We Adapting (n.d.), 'Spike in cancellation rates.' accessed 15.12.20, available at: <https://adapt.waga.com.au/StrengtheningCommunity#>
5. Department of Health (2014) *The health impacts of the January 2014 heatwave in Victoria*, State Government of Victoria, Melbourne.

## Assets & infrastructure

- Land
- Roads
- Buildings
- Drains
- Footpaths
- Bridges



The footbridge over Barongarook Creek in the heart of Colac washed away in the flash flooding of September 2016. Image: South West Climate Change Portal

Victorian councils control over \$100 billion in assets and infrastructure, which may be at risk of damage from extreme weather events.

- Physical impacts such as wind, bushfire, flooding, heatwaves and other extreme weather events may impact infrastructure. An example is bridge washout, as captured in Colac Otway Shire in 2016. This flooding caused response and recovery works estimated at \$4 million.
- The bitumen on roads can deteriorate at faster rates due to more exposure to heat so roads may need more maintenance in the changing climate.
- Steel rusting and concrete corrosion can result from increased sea spray and wetting from storm surge and sea level rise.
- Stormwater drainage may need to cope with larger volumes of water and more frequent flash flooding.
- Air quality in public buildings can be impacted by bushfire smoke unless the building is suitably well sealed building with well maintained ventilation systems

Any rebuilding of assets should be to a standard that considers climate projections, not historical standards.



## Parks, recreation & culture

- Libraries and museums
- Sport and recreation facilities (sports grounds, swimming pools, support for clubs, etc.)
- Leisure and arts facilities (public art, theatre productions, public festivals and events)
- Parks, gardens and reserves (including walking and bike trails)
- Coordination of one-off events



Image credit: Hobsons Bay City Council

Reduced rainfall and increased sea level, heat and fire danger may impact Council's parks, sporting facilities and buildings.

For example, less overall rainfall could mean that sports fields and gardens need more watering, and more people might attend council parks, pools and other recreation facilities to escape the heat during summer and throughout the year as the climate warms.

Use of artificial turf instead of grass can contribute to the urban heat island effect.

Droughts can close sports grounds for longer periods of time, disrupting the community benefits of sport.

Aquatic centres are large users of energy. As we transition to a zero carbon economy, will these centres have a reliable, affordable energy supply?

Climate change poses a risk to biodiversity. There may be increased maintenance requirements, for example as a result of invasive species. In some areas and conditions, vegetation may need to be replaced with drought-tolerant species that

will survive in future conditions.

Areas with associated cultural heritage might also be put at risk. For example, beach boxes on the foreshore are at risk from sea level rise, sea level extremes, and erosion.

## Maintenance and operations

- Road construction
- Footpath and kerb concreting works
- Maintenance of assets and public open space
- Weed control
- Tree maintenance
- Street sweeping
- Office buildings



Image credit: Greater Shepparton City Council

Councils need to consider disruptions to regular maintenance regimes as a result of climate change, such as extreme heat preventing work outdoors. Some weather events such as floods also require significant recovery and clean-up works.

Maintenance and operations will be critical for ensuring the resilience of public infrastructure – this includes drainage works to help with flood risk and pumps for irrigation.

There's a need for a transition to new materials for road and footpath construction - with higher reflectivity or better drainage. Many councils are now using permeable paving materials as part of their water sensitive urban design.

Street trees provide vital cooling and shade. Their growth can be affected by the impacts of climate change. Councils may need to adjust maintenance regime or plant drought-tolerant species. Weeds may grow across a wider area and for a longer season than previously experienced, so costing more to manage or needing a different way to deal with them.

Customer services centres, other public buildings as well as offices where back office

staff are working may need to close due to extreme weather events, so disrupting council operations.

Staff working outside will be impacted by extreme weather events and may not be able to do their work safely at those times. The cost of reduced labour productivity in Australia as a result of heatwaves is estimated to be \$8.7 billion per year.

## Waste management

- Waste pick up and disposal
- Landfill management and management of emissions from landfill
- Operation of transfer stations
- Processing of recyclables and organics
- Community education



### Waste Management

Waste and landfill emissions can account for a significant portion of municipal emissions.

- Waste and landfill pick up, disposal and management is important, including complex considerations such as whether decommissioned landfill sites near the coast are impacted by sea level rise and coastal erosion exposing materials.

Refer to waste sector

pledge [https://www.climatechange.vic.gov.au/\\_data/assets/pdf\\_file/0033/522798/Waste-sector-pledge-full-colour.pdf](https://www.climatechange.vic.gov.au/_data/assets/pdf_file/0033/522798/Waste-sector-pledge-full-colour.pdf)

## Emergency management

- Coordination between agencies
- Emergency relief centres
- Plant and equipment
- Availability of staff for response and recovery
- Other support such as the vulnerable persons register



### Emergency Management

As we have covered, **climate change projections suggest increased risks of bushfires, flood, droughts and heatwaves in the future.**

- Consider impact of climate change in emergency management
- Victoria need to consider the appropriateness of emergency relief centres in housing the community. Do they provide adequate and safe relief with future changing conditions?

## Supporting your community

- Supporting businesses
- Supporting communities
- Supporting community groups



### And finally, Supporting your Community – businesses, communities, different groups

- Climate change will impact across society in different ways.
- As more communities are more concerned about climate change, they may expect more of a response from their council



Climate related hazards are already impacting councils and the risks are expected to increase in the future.

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Councils need to act on climate change.

It is also worthwhile considering how actions to transition to net zero emissions will impact on your council services and operations.

Reaching our emissions reduction targets will take action by governments, businesses, and the community.

To help drive this action, the Victorian Government developed pledges which outline the actions to cut emissions from different sectors of the economy and from the Victorian Government's own operations.

The first pledge period is from 2021 to 2025, and pledges will be made every 5 years until Victoria achieves net-zero emissions.

Consider the sector pledges at: <https://www.climatechange.vic.gov.au/victorian-government-action-on-climate-change#pledges>

Many of Victoria's local governments have also shown leadership and submitted [council emissions reduction pledges](#).