

Climate Change Risks to Local Government

Managing climate change risks to council services, infrastructure and operations, and supporting the community to adapt, are critical responsibilities of local government.

Adaptation is action taken to prepare for actual or expected changes in the climate, in order to minimise harm, act on opportunities or cope with the consequences. *Climate Change Act 2017*

The *Paris Agreement*, is a global agreement under the United Nations Framework Convention on Climate Change to reduce greenhouse emissions and adapt to the impacts of climate change. It came into force on 4 November 2016. 195 countries have signed the agreement and 144 parties have ratified it, including Australia. *(May 2017)*

Local governments are on the front line in dealing with climate change impacts.

Local governments have been demonstrating leadership in climate change action for many years. In particular, councils across Victoria have made significant progress in reducing their greenhouse gas emissions, and supporting communities to do the same.

However, no matter how quickly we reduce emissions, some changes to our climate are already 'locked in'. The essential services and infrastructure councils provide to the community are vulnerable to a range of climate hazards. Because of their local knowledge and close connection to the community, councils are often best placed to help the local community reduce risks and adapt to climate change.

This information brochure highlights examples of the climate change risks faced by councils and how to consider some of these risks in decision-making.

VICTORIA HAS BEEN GETTING WARMER AND DRIER. IN THE FUTURE THE STATE CAN EXPECT:

- temperatures to continue to increase year round
- more hot days and warm spells
- fewer frosts
- less rainfall in winter and spring south of the Divide; less rainfall in autumn, winter and spring north of the Divide
- more frequent and more intense downpours
- harsher fire weather and longer fire seasons
- rising sea level
- warmer and more acidic oceans
- increased frequency and height of extreme sea level events



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Infrastructure

Decisions about the location, construction and maintenance of infrastructure (e.g. buildings, roads, bridges, pathways, drainage) should consider the risk to this infrastructure from climate change. This includes adapting existing infrastructure, particularly for assets that deliver critical services to the community.

Will the asset be exposed to higher fire risk? Will stormwater drainage need to cope with larger volumes of water or more frequent flash flooding? Will road maintenance need to be increased to deal with the increased impact of heat or rainfall on bitumen?

Natural Environment

Drought, changes in average temperatures or extreme events may affect local flora and fauna over the short and long term.

Do urban planning decisions protect bio-links between conservation areas? Are council planting street trees that will tolerate warmer temperatures? Does council weed management recognise that weeds may grow across a wider area and for a longer season than previously experienced?

Sports and Recreation

Many Victorian councils already understand the impact of drought on the maintenance of local parks, and sports and recreation facilities. Increasing heat exposure also poses risks to people using council sport facilities and active outdoor spaces.

Does council have a maintenance regime in place to conserve water and protect facilities? Is council pursuing opportunities to harvest and treat stormwater for reuse and environmental flows? Are council's outdoor recreation facilities adequately shaded?

Urban Development and Housing

The urban fringe is at increasingly high risk of bush and grass fire. As the climate changes, fire and flood will be more frequent and more intense and affect more settlements, more often. Sea level rise, coastal erosion and storm surge will affect sea-side housing. Heatwaves will also increase in frequency and intensity, putting people at risk. This is especially serious in urban areas, where the urban heat island effect increases temperatures even further. Poor quality housing can expose residents to extreme heat. Residents of low density settlements where public transport is harder to access can also face compounding stresses including lack of access to services and rising fuel costs.

Are new housing approvals in a flood or fire risk zone? Will new housing design keep residents safe and comfortable in a changing climate? Do new urban subdivisions have efficient access in and out? Does the urban design for new town centres provide shade and avoid creating heat islands?

Human Health

Vulnerable people in the community are at greater risk of sickness, death and significant financial and social impact from climate change. This includes those who already receive community care, the sick or disabled, indigenous, low income, socially isolated, elderly and very young, and CALD (Culturally and Linguistically Diverse) communities. Those people also with poor quality housing and limited access to cool spaces face increased vulnerability to heatwave.

How can we help our vulnerable residents survive heatwaves? How does council manage increasing pressure on community care officers and outdoor workers in extreme weather? How does council ensure vulnerable residents plan ahead for surviving a heat wave or extreme fire event?

Council Operations

Council staff, infrastructure and services will be affected by climate change. Council workers may be directly exposed to the impacts of climate change, which can affect their health and safety and reduce the productivity of the organisation. Outdoor workers are at particular risk from heat stroke. Community care workers may experience increased demand for their services. Council public services may be interrupted by storm, heat, flood or fire. Council infrastructure will need increased maintenance and face more frequent failure. Councils could be liable for decisions that do not take account of widely accepted climate risk.

Will council be able to continue operations if buildings are damaged by extreme weather? Will council be able to insure its assets in the future? If there is an extreme event how much will council lose capacity on daily operations? Does council emergency preparedness account for the increasing number and intensity of weather emergencies? What procedures does council have in place to protect the health and wellbeing of its staff in the face of increased extreme weather events?

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As a Councillor, you need to consider these risks to your community and council. What can you do?

- Advocate for climate change to be included in your Council Plan, council's risk register, Business Continuity Plan, capital works processes, and council report templates.
- Advocate for a council climate change policy and an adaptation plan.
- Encourage your fellow Councillors and council officers to consider the impacts of climate change in all policy development, and program and service delivery. The best and most cost-effective approach for climate change adaptation is embedding these considerations in existing work and business-as-usual practices.
- Participate in existing communities of practice, such as the regional Greenhouse Alliances.
- Remember Victorian councils must consider the impacts of climate change when preparing their Municipal Health and Wellbeing Plans (*Climate Change Act 2017*).
- Learn what your council is already doing and consider how it could be strengthened.
- Encourage community resilience by sharing climate adaptation information with the community and providing tools to assist households and businesses to make changes.



Credit: Moyne Shire Council 2016

Leading Local Adaptation Case Studies

Councils are learning from each other as they develop approaches to managing climate change risks. These case studies highlight innovative and effective action on a local scale.

Understanding and adapting land use capability under a changing climate, Southern Grampians Shire Council.

Recognising changes to local agriculture in the face of increased extreme weather, South Grampians Shire Council worked with Deakin University to develop an online tool to allow users to overlay climate projections for the region with crop type and other factors affecting agricultural production.

(<http://www.growinggreaterhamilton.com.au/>)

Homeless Brokerage Program, City of Melbourne.

Those experiencing homelessness are at particular risk from the impact of extreme heat. The City of Melbourne partnered with homeless support services to provide the homeless with heat health information, maps of water bubblers and cool public places, free water bottles and passes to pools and cinemas as options to escape the heat. In addition, on heat health alert days for Melbourne, many homeless support agencies extend operation hours to provide a place of respite.

Integrating Climate Change in Project Initiation Proposals, Baw Baw Shire Council

Baw Baw Shire Council has integrated climate change considerations in its Project Initiation Proposals for 2017/18. All new infrastructure projects are subject to meeting various criteria – one of which is potential impacts from climate change. The purpose is to objectively assess climate change impacts on each project to create resilient council infrastructure.

Building Vulnerability Assessment, NAGA and EAGA

The Northern and Eastern Alliances for Greenhouse Action have delivered training designed to increase the capacity of councils to consider climate change in asset management and capital works programs, and reduce the vulnerability of council buildings to climate change.

The program involved delivering a customised training program for council asset and facility managers. Managers learned how to embed building vulnerability assessment approaches within ongoing asset management practices and capital works programs. Workshops were accompanied by a detailed case study and assessment methodology. In addition to the workshops, a number of resources were developed for practitioners across the sector, including assessment sheets, a training guide and outcomes from pilot trials. (<http://www.naga.org.au/future-assets-forum.html>)

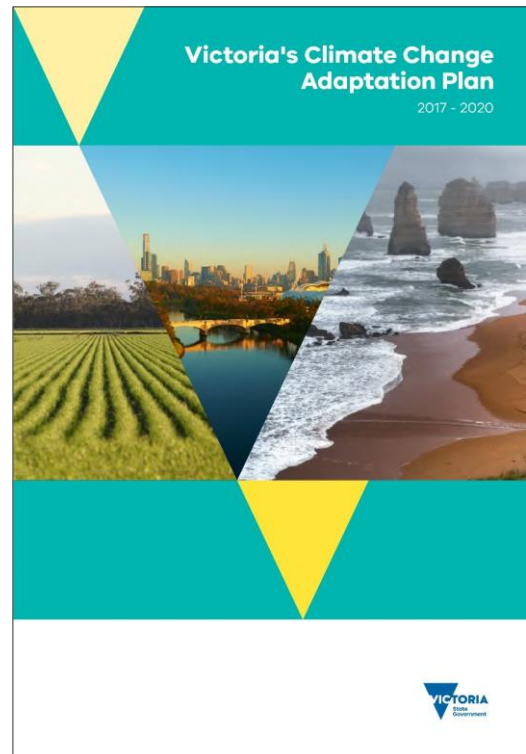
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Victorian Government Leadership on Climate Change Action

- The *Climate Change Act 2017* is world-leading legislation to manage climate change risks and maximise opportunities that arise from decisive action, and drive Victoria's transition to a net zero emission, climate resilient community and economy. The Act will commence operation on 1 November 2017.
<http://www.parliament.vic.gov.au/static/www.legislation.vic.gov.au-statbook.html>
- *Victoria's Climate Change Adaptation Plan 2017 – 2020* includes a commitment to partnering with local government on adaptation to help build local government capacity and collaborative action.

<http://delwp.vic.gov.au/environment-and-wildlife/climate-change>
- TAKE2 is Victoria's multi-sector pledging program to reduce emissions to set Victoria on the pathway to meet net zero emissions by 2050. Government has pledged to reduce emissions from departments by 30 per cent from 2015 levels by 2020. Local governments representing over half of Victoria's population have already pledged.

www.take2.vic.gov.au



To discuss climate change adaptation and the *Victorian Climate Change Adaptation Plan 2017 – 2020* or the *Climate Change Act 2017* email
climate.change@delwp.vic.gov.au

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