



Climate Change Adaptation Framework

2017-2022

Contents

1.	Introduction.....	2
	The purpose of this Framework.....	2
	Climate change impacts for Brimbank and the region	3
2.	Context for action	4
	The role of local government to respond.....	4
	The policy context.....	5
3.	Climate change adaptation at Brimbank City Council.....	6
	Climate change adaptation priorities.....	6
	Current climate change adaptation initiatives at Brimbank	8
4.	Climate change adaptation principles.....	9
5.	Embedding climate considerations within relevant policy and strategy.....	10
6.	Advocacy	12
7.	Monitoring, evaluation and review	13
8.	Climate Change Adaptation Framework Action Plan	14
9.	Appendix	21
	Appendix 1. How Well Are We Adapting: a monitoring, evaluation and reporting framework for adaptation performance by councils.....	21

1. Introduction

The purpose of this Framework

This Climate Change Adaptation Framework 2017-2022 provides clear strategic direction for building climate resilience within the Brimbank community and within Council's services and operations. Where the *Brimbank Greenhouse Reduction Strategy 2013-2023* addresses the need to reduce the *causes of climate change* (greenhouse emissions), this Framework presents all the ways in which Council prepares and responds to anticipated long-term *climate change impacts*.

Alongside other western region councils, Brimbank City Council reviewed policies and processes for how well the organisation is positioned to respond to a hotter, drier climate with more frequent and extreme weather events. This important work led to an update of Council's operational and strategic risk registers to include a specific set of climate change risks.

Beyond climate risk management, this Framework coordinates climate change responses over longer time-frames and across a number of climate scenarios. The necessary adaptation responses will involve policy changes and updated planning responses, advocacy priorities and building partnerships with local agencies. Organisational capacity will also be strengthened through leadership and training to apply best practice adaptation principles to decision making.

This Framework aims to:

1. Identify a **cohesive organisational approach** to climate change adaptation by identifying existing action and prioritising climate response across Council's services and operations
2. Outline an approach for consistently **embedding climate considerations** within updates to policies and strategies
3. Introduce a set of **adaptation principles** to assist decision makers with integrating adaptation response into their day-to-day decision making
4. Recommend **advocacy and partnership opportunities** for Council.

Climate change impacts for Brimbank and the region

Global climate projections are based on sophisticated international and national climate models. These models demonstrate that even slight increases in global average temperatures intensify the volatility of our climate. The excess heat trapped within our climate system results in a range of climate change impacts for communities around the world, and in our region.

The City of Brimbank is a highly urbanised municipality located 20 km from the Melbourne CBD. Brimbank is situated on the volcanic plains with historically low rainfall, and is located between outer areas experiencing high urban growth and inner west suburbs with pockets of heavy industry.

Brimbank's 202,863 residents come from diverse multicultural backgrounds. Our City also has higher socio-economic disadvantage relative to other Victorian municipalities.



Heat waves are becoming more frequent and severe and lead to damaged infrastructure, power black outs and injury or death in elderly, infant, chronically ill and migrant populations. Brimbank has a population that is particularly at risk to heatwave impacts due to our demographic profile and urban environment which traps heat (National Climate Change Adaptation Research Facility. Loughnan, ME., Tapper, NJ., 2013)



Victoria has seen a decline in autumn, winter and spring rainfall over the past two decades and runoff into most of our waterways is projected to decrease between 5 and 45% by 2030 and between 5 and 50% by 2070 (The Climate Institute, 2013). By 2070 drought frequency is likely to increase by between 10 and 80% in the southern half of Victoria (The Climate Institute, 2013).



Increased incidence of heavier rainfall events create risks of riverine flooding, flash flooding and storm damage. According to the Insurance Council of Australia, in 2011 storms inflicted \$1.1 billion in loss and damage on the state (Department of Environment and Primary Industries, 2013).



More intense fire conditions contribute to the severity of incidents like the Black Saturday Fires in 2009. The risk of fires will continue to increase substantially in Victoria, with the number of extreme fire danger days expected to increase by 25% by 2020 and up to 230% by 2050 (Commissioner for Environmental Sustainability, Victoria, 2013). Grass fires, typical to Brimbank, can move rapidly and expose residents to risk.

Figure 1. Climate change trends and projections for Brimbank

2. Context for action

The role of local government to respond

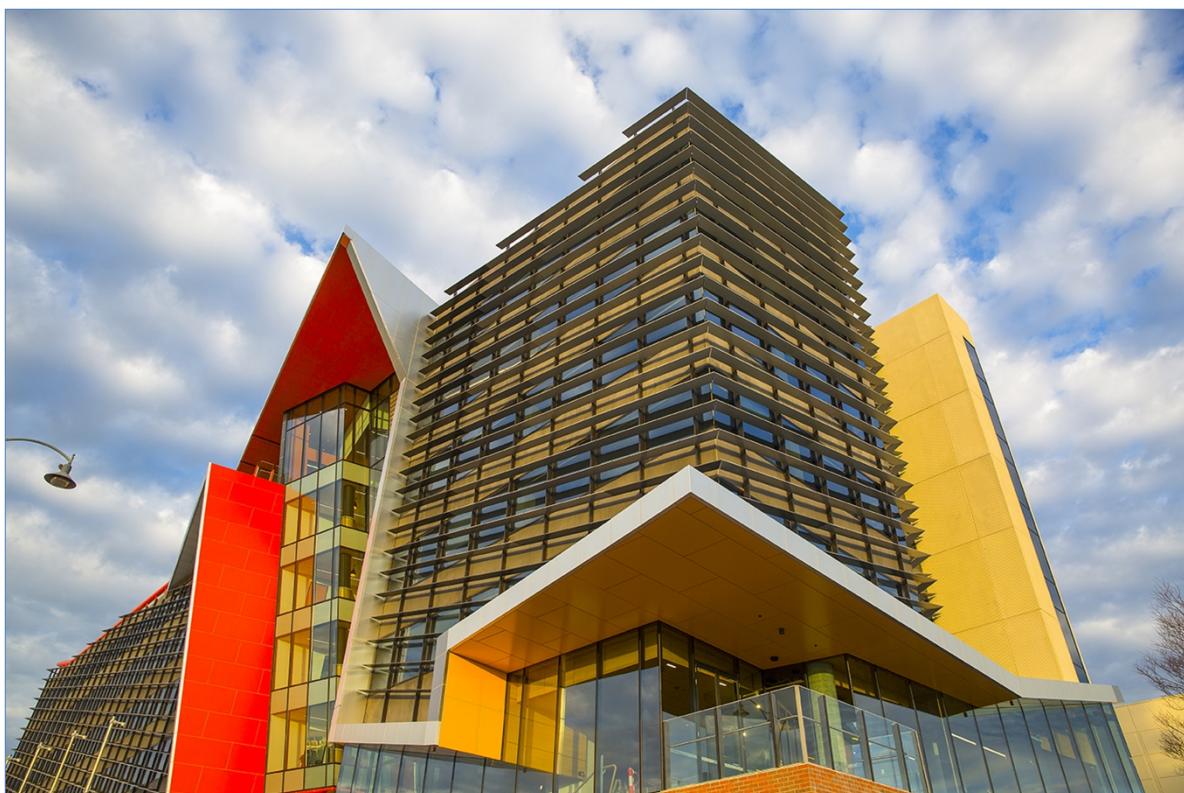
Local governments across Australia are on the frontline of effective climate change adaptation response. Climate vulnerabilities and hazards vary from region to region, and so Council is best positioned to embed adaptive measures and manage immediate and long-term climate risks at a local scale. Council needs to consider climate impacts through our service delivery for health and wellbeing, decisions relating to development, and the design and maintenance of our buildings, drainage, roads, open space and other infrastructure.

Council will support our communities to recognise risks and will change the way we plan, develop and live in our City to account for climate impacts. Council will collaborate with our community, with other councils and other levels of government, the private sector and other institutions to identify and deliver on local adaptation priorities.

A proactive approach enabled by this Climate Change Adaptation Framework also allows Council to reduce costs, avoid potential liabilities, and enhance business continuity over the long term.

In practical ways, the Framework applies the objectives and pathways of the Victorian Government's Climate Change Adaptation Plan 2017-2020 within Brimbank. This alignment positions Council well to collaborate and coordinate adaptation actions with those of key agencies, other councils and other stakeholders.

The Framework ensures Council is clear on local adaption needs and strategic priorities when advocating to key agencies on climate adaptation, and when seeking any State, Federal or other funding for local adaptation responses.



The policy context

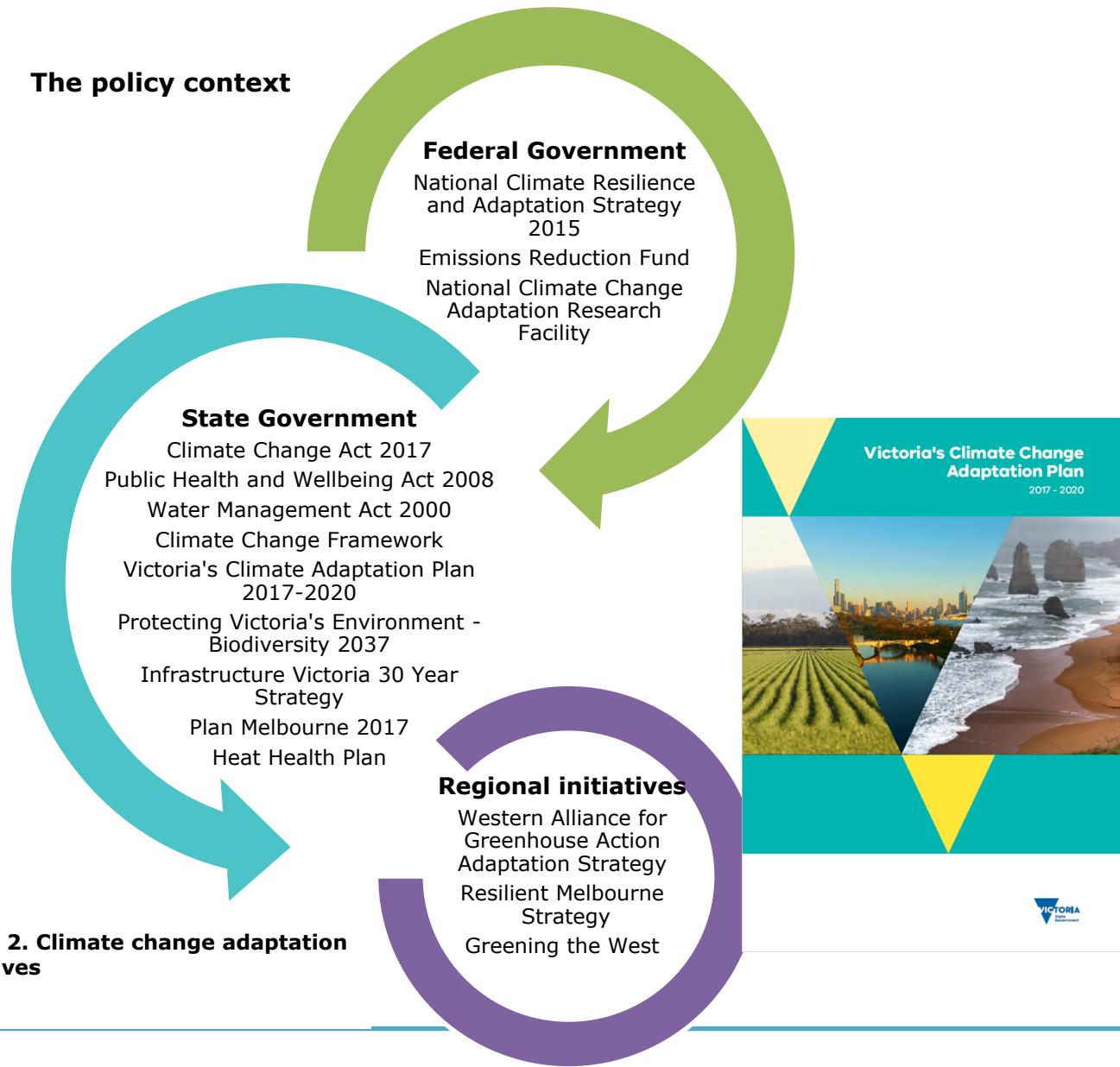


Figure 2. Climate change adaptation initiatives

VICTORIA'S CLIMATE CHANGE ADAPTATION PLAN 2017 - 2020 highlights that building a shared understanding of the roles and responsibilities of state and local government is a priority action and defines the following roles for local government:

- *Manage climate change risks to council community services and assets, with support from the State Government.*
- *Identify the needs and priorities of the municipality, and communicate these to State Government where needed.*
- *Develop and deliver locally-appropriate adaptation responses.*
- *Build the resilience of local assets and services.*
- *Plan for emergency management at the municipal level, provide relief and recovery services, and support emergency response operations.*
- *Help the State Government understand localised impacts and responses.*
- *Work with the community to help people understand and get involved in climate change adaptation.*
- *Help connect the State Government with the community.*

3. Climate change adaptation at Brimbank City Council

Climate change impacts, such as temperature increases and extreme weather events, are already being experienced and will intensify in the coming years. The Adaptation Priorities listed here aim to ensure Council's efforts at building capacity and responding to climate impacts are consistent and focused across our service delivery.

An Action Plan addressing each priority area is provided within this Framework.

Climate change adaptation priorities

- *Resilient communities and service delivery*

Council will work with our community to increase the awareness and preparedness for oncoming climate impacts on health and wellbeing. Council will ensure services remain resilient under a range of climate scenarios and protect vulnerable community members, such as elderly residents or those from culturally and linguistically diverse (CALD) backgrounds, from the impact of heatwaves, flooding, and frequency and severity of storm events.

- *Safe and accessible communities*

Council will strengthen its preparation for more frequent and severe emergency weather events through our emergency management plans and procedures. To keep our communities safe and accessible during emergencies, Council collaborates with key authorities and partners in our region to deliver emergency management that responds to local climate change risks.

- *Long term planning for infrastructure, planning and assets*

Council will plan and deliver infrastructure and urban planning services that ensure development and assets remain viable over long timeframes and under a range of climate scenarios. An overall drying trend, higher intensity rainfall events, periods of prolonged drought and increased average temperature, will present risks to Council's infrastructure such as drainage, roads and buildings.

- *Cool, biodiverse and water secure city*

Council will seek opportunities to minimise the effects of drought conditions, heat waves and the urban heat island effect. Council will address urban heat and the reduced availability of water through our responsibilities for urban planning, tree canopy cover, smarter water use (especially for open space irrigation) and through ensuring the genetic diversity and resilience of native

vegetation and open space, and through managing impact of drainage on local waterways and biodiversity.

- *Governance and risk*

Council will identify and respond to climate change-related exposure to increased costs, new or expanded liability risks and insurance claims. Council will share and collaborate with other levels of government, councils and partners within the region, the benefits and lessons learned by Council for governance and risk management within a changing climate.



Current climate change adaptation initiatives at Brimbank

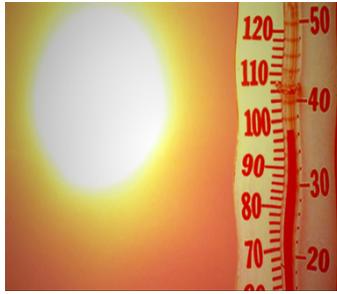
Resilient communities and service delivery	Safe and accessible communities	Long term planning – Infrastructure planning and assets	Cool, biodiverse and water secure city	Governance and risk
 <p>Healthy homes</p> <p>In partnership with the Victorian Government, Council will assist home and community care clients to make their homes more energy efficient, more comfortable and resilient to extreme weather conditions.</p>	 <p>Emergency Recovery Heat Plan</p> <p>This Framework outlines how Council will help protect the health of vulnerable community members during and after a heat event. This Plan ensures preparedness for setting up recovery centres and clear communication between authorities and the community.</p>	 <p>Stormwater harvesting for sportsgrounds</p> <p>Stormwater harvesting uses water that would otherwise overwhelm local water ways to irrigate sportsgrounds. With other water efficiency actions such as warm season grass conversions, this has reduced Council's use of mains water in a drying climate.</p>	 <p>Urban Forest Strategy</p> <p>The Urban Forest Strategy aims to increase tree canopy cover across the municipality to 30% to reduce urban heat island effects and to protect existing trees through planning and enforcement measures.</p>	 <p>Climate risk register</p> <p>Council has identified seven climate change risks which have been placed into Council's operational risk register for annual review by Council managers.</p>

Figure 3. Case studies of existing actions that align with Council's adaptation priorities

4. Climate change adaptation principles

Council will use a best practice^{1,2} principles-based approach to deliver a cohesive organisational response to oncoming climate impacts. This approach is necessary for Council to comprehensively account for the uncertainty, complexity and long-time frames inherent with climate change impacts.

These Adaptation Principles will be applied to all Council's current and future policy, services and operations which contribute to climate resilience within the Brimbank community and Council's services and operations.

Council will:

- 1. Consider decisions and design responses that will continue to **perform under a number of different future climate scenarios** relevant to services and asset lifespans.**
- 2. Choose **adaptation responses that are flexible** (easily modified or reversed), that can be scaled up or down, or keep our options open as we learn more about how the climate actually changes.**
- 3. Build in safety margins to **ensure adaptation responses remain useful** under a broader range of climate scenarios and provide multiple benefits alongside climate resilience.**
- 4. Practice **integrated decision-making** where adaptation responses are:**
 - a. balanced with other Council and community priorities to avoid adverse outcomes,**
 - b. adequately resourced,**
 - c. account for costs if adaptation action is delayed and costs of externalities,**
 - d. are compatible with efforts to reduce greenhouse gas emissions.**
- 5. Prioritise decisions and solutions that **Maintain equity** across and within generations, and that protect community members who are most exposed to climate impacts.**

¹ Climate Resilience Training, City of Greater Geelong: <http://coggresilience.loopandco.com.au/>

² Victoria's Climate Change Adaptation Plan 2017 – 2020, p. 17

5. Embedding climate considerations within relevant policy and strategy

The adaptation priorities and adaptation principles identified in this Framework will be integrated throughout Council's broader policy environment to ensure we implement a cohesive response. Under the directions of the Community and Council Plans, the Adaptation Framework Priorities and Principles will be applied through the Adaptation Advocacy and the Framework Action Plan. Council's adopted plans and strategies, including the Municipal Strategic Statement will also progressively respond to Adaptation Priorities and integrate the Adaptation Principles (see Figure 4 below).



Figure 4. How the Adaptation Framework interacts with other Council policies.

Figure 5 below highlights those Council plans and strategies that will integrate climate change adaptation principles as and when they are reviewed.

Resilient communities and service delivery	Safe and accessible communities	Long term planning for infrastructure, planning and assets	Cool, biodiverse and water secure city	Governance and risk
<ul style="list-style-type: none">• Brimbank Community Plan (including Municipal Public Health and Wellbeing Plan)• Brimbank Children's Plan, 2015-2019• Brimbank Aged Friendly City Plan 2013–2017• Brimbank Youth Strategy 2015-2019• Brimbank Disability Action Plan 2017–2020• Brimbank Community Strengthening Policy 2014	<ul style="list-style-type: none">• Municipal Emergency Management Plan and sub-plans:• Municipal Flood Emergency Plan• Brimbank Fire Management Plan 2014• Brimbank (Emergency Recovery) Heatwave Plan• Community Emergency Risk Assessment• Brimbank Community Safety Strategy 2015–2019• Brimbank Flood Management Plan 2013• Men's Violence Against Women 2015-2019	<ul style="list-style-type: none">• Brimbank Planning Scheme• Home and Housed Housing Strategy 2014• Brimbank Settlement Action Plan 2013-2017• Sports Facility Development Plan 2016• Transport Priorities Paper, 2013 (updated 2016)• Cycling and Walking Strategy, 2016• Asset Management Policy• Asset Management Strategy• Integrated Asset Management Plan	<ul style="list-style-type: none">• Brimbank Greenhouse Reduction Strategy 2013-2023• Sustainable Water Management Strategy 2013-2023• Biodiversity Strategy 2012-2022• Urban Forest Strategy 2016-2046• Street Tree Policy• Creating Better Parks Policy and Plan 2016• Brimbank Stormwater Management Plan	<ul style="list-style-type: none">• Strategic Risk Register

Figure 5. Key Council strategies and plans that will integrate climate change adaptation principles.

6. Advocacy

Part of Council's adaptation responses will be influenced from other levels of government and by regulatory concerns. Council will need to develop partnerships with other key agencies and other levels of government to effectively adapt at the appropriate scale. A number of specific advocacy priorities are broadly outlined below.

Climate Change Adaptation Advocacy Priorities

Priority planning and infrastructure issues

- **Power outages** can have severe health and economic consequences during extreme weather events.
- **Asset and infrastructure** decisions rely on standard design guidelines that currently do not consistently incorporate a way to include climate change projections.
- **Building standards** for residential, commercial and industrial buildings need strengthening with minimum standards for climate resilience.
- **Major infrastructure projects** need to integrate climate change adaptation principles into their delivery, design and management.
- **Land-use planning decisions** need to factor in climate change scenarios. This should be actively supported by higher levels of government through provision of consistent data sets, clear standards and support for decision-making that applies best practice Adaptation Principles.

Priority community and business sector issues

- Brimbank has a **high proportion of residents who are at increased risk to climate change impacts** due to socio-economic disadvantage, being a recent migrant, elderly or very young, or due to having a chronic health condition. Council can advocate for additional support for these residents. This could include, but is not limited to, targeted programs, partner agencies and other levels of government to ensure they are not disproportionately affected by climate change.
- **Businesses in Brimbank will be affected by climate change** through their electricity and water costs, power outages, and decreased or increased customer numbers during extreme weather events depending on their business type. Council should advocate support for programs that will increase local business resilience and preparedness to climate change impacts, which will more broadly assist the community to adapt and respond.

7. Monitoring, evaluation and review

Council's success in adaptation requires a number of potential pathways or solutions that address each of Adaptation Priority. To ensure our adaptation responses remain viable and adhere to our Adaptation Principles, Council will continually monitor, reflect on lessons and adjust our responses accordingly. The monitoring, evaluation and review of Council's adaptation responses and adaptive capacity will occur via the following approaches.

Monitoring organisational climate change risks

Council's operational and strategic risk register monitors organisational risk treatment actions annually. Climate change risks have been included in these registers to drive immediate progress on adaptation responses.

Delivery of risk treatment actions are assigned to 'risk owners' from across the organisation. Council's Audit & Governance Committee, Governance Department and Council's 'risk owners' will review and progressively update risks and prioritise treatment actions annually.

Monitoring delivery of the Adaptation Framework Action Plan

The Adaptation Framework Action Plan progresses all of Council's adaptation responses beyond the organisational risk registers. An internal Climate Adaptation Working Group will be formed to oversee the delivery of the Adaptation Framework Action Plan. The Environment and Governance Departments will jointly lead the working group, which will meet at least twice a year and be comprised of Council officers responsible for Framework Actions.

'How Well Are We Adapting?' adaptation indicators for local government

Council, as part of the Western Alliance for Greenhouse Action, has developed a monitoring and evaluation framework and tool for local governments (see Appendix 1). The internal Climate Change Adaptation Working Group will be responsible for collating adaptation indicator data for each year to improve Council's long-term adaptive capacity and inform the Adaptation Framework review process.

Adaptation Framework Review

The Adaptation Framework will be reviewed and updated in 2022. In the intervening years, the Framework Action Plan will be reviewed for progress on actions. The internal Climate Change Adaptation Framework Working Group, led by the Council's Environment and Governance Departments, will be responsible for the review and reporting on this Adaptation Framework.

8. Climate Change Adaptation Framework Action Plan

Resilient communities and service delivery

Timing	Actions	Opportunities, partnerships and advocacy	Responsibility	Resourcing
Now – 2 years	<p>1.1 Update the Council Plan and Community Plan (including Municipal Public Health and Wellbeing Plan) to ensure climate change is comprehensively considered in line with Climate Change Act (2017) legislative requirements.</p> <p>1.2 Participate in Sustainability Victoria's Healthy Homes program to retrofit Home and Community Care clients' homes to ensure better cooling capacity and energy savings are realised for vulnerable residents.</p>	<p>Council Plan working group</p> <p>Partners could include: Sustainability Victoria, Department of Health and Human Services, Brotherhood of St. Laurence, Climate and Health Advocacy.</p>	Policy, Advocacy and Research Community Care	Staff time + Staff time +
3 – 5 years	1.3 Engage with the community to develop and deliver an educational program to raise awareness of climate impacts and how to prepare – this will assist Council by reducing pressure on emergency management resources overtime, if the community increases resilience as climate events become more extreme. May include scenario mapping and assessment of vulnerable communities, and should include community strengthening programs.	Opportunities for community strengthening programs that support climate resilience include Resilient Melbourne's Neighbourhood project, the expansion or review of existing Brimbank City Council community engagement initiatives, i.e. The Living in your Neighbourhood program. Other opportunities may include focusing on young people's education, people from non- English speaking backgrounds, and utilising active and strong existing community networks.	Community Planning and Engagement	Staff time +++ and possible external funding \$

Safe and accessible communities

Timing	Actions	Opportunities, partnerships and advocacy	Responsibility	Resourcing
Now – 2 years	2.1 Update Council's response plans to emergency events: <ul style="list-style-type: none"> Continue to review and update Council's Heatwave Plan in line with state government requirements. Review Council's Municipal Emergency Management Plans (including sub-plans such as the Brimbank Flood Management Plan and Fire Management Plan), Community Emergency Risk Assessment, Risk Action Plans, and associated strategic documents to ensure they consider current and future climate change impacts and have a proactive approach to preparedness to reduce recovery and response 	Actively collaborate internally with the MEMP Committee and with other emergency management agencies for advice on factoring in climate change into emergency management planning and preparedness. Partners may include: North West regional collaboration, Emergency Management Victoria, State Emergency Service, etc. to ensure our climate change approach is consistent and remains best practice.	Emergency Management	Staff time +
	2.2 Review Council-run facilities and services that are used by the community to seek relief during extreme weather events, particularly heat wave events. Assess their capacity to cope with peak events and identified risks, particularly associated with overcrowding during heatwave events at facilities such as leisure centres.		Leisure Services Risk and Emergency Management	Staff time ++ Internal or external partnerships
3 – 5 years	2.3 Engage with the community to develop and deliver a broad-based community education program on the impacts of climate change, with targeted engagement initiatives as needed.	Target key needs such as outreach to culturally and linguistically diverse communities, water safety and overcrowding at Council's leisure centres. Opportunities include utilising the 'Living in Your Neighbourhood' program, which may be expanded to include leisure centre safety, heat wave safety and emergency management.	Community Planning and Engagement Leisure Services	Staff time ++ Funding \$

Long term planning - Infrastructure, planning and assets

Timing	Actions	Opportunities, partnerships and advocacy	Responsibility	Resourcing
Now – 2 years	<p>3.1 Through the implementation of Council's proposed Environmentally Sustainable Design (ESD) Framework, ensure the uptake of adaptive building design for Council buildings that are internally comfortable, withstand extreme temperatures, have low energy use, are resilient to flood impacts, higher winds and extreme weather conditions.</p> <p>3.2 Complete drainage inspection prioritisation process (CCTV assessment) to identify drainage areas at high risk of deterioration and flood vulnerability.</p>	Investigating the Northern Alliance for Greenhouse Action's (NAGA) building vulnerability assessment tool.	Environment Facilities and Major Projects	Staff time +
	<p>3.3 Conduct drainage network analysis and map reduced capacity under medium term (2040) and long term climate risk projections (2070) to determine total drainage capacity requirements. For example, the road rehabilitation program employs pro-active hotspot flood modelling in priority areas, e.g. Sunshine Activity Centre. Pilot climate change scenarios into the flood modelling in the hotspot program. Explore opportunities to progress integration of climate change projections into drainage network.</p> <p>3.4 Investigate a process to incorporate adaptation into project design processes across Council via the Capital Works Steering Group. Develop an agreed methodology for assessing assets for</p>	Work with DELWP, and Melbourne Water to update flood modelling that reflects climate change projections. Melbourne Water updates GIS overlays for Melbourne Water land annually, but we need to investigate whether they are including climate projections into their modelling. Engineers Australia has updated design guidelines for drainage assets. These Australian Rainfall and Runoff guidelines include advice on how to take climate change into consideration (Book 1, Ch. 6).	Asset Services Engineering Environment	Staff time + Already funded
		Opportunities include adapting City of Yarra's Adaptation Guidance Tool & Quadruple bottom line assessment for operational and capital projects to		Staff time ++ External partnership Internal or external funding \$\$\$
			Environment	Staff time ++

	vulnerability against future climate change impacts.	Brimbank's requirements. Another opportunity is to review Geelong's Asset Design Framework.		
3.5	Work with partner agencies such as VicRoads to understand best practice approaches to manage climate change impacts on roads and related infrastructure.	Investigate options for monitoring and adaptive management of road resilience to climate change.	Engineering	Staff time + External partnerships
3.6	Review opportunities to update the Municipal Strategic Statement with the introduction of Environmentally Sustainable Design (ESD) principles, standards and assessment for residential, retail and industrial design to enhance climate resilience to increased extreme weather events.	Consider opportunities such as the Sustainable Design Assessment in the Planning Process (SDAPP) undertaken by other councils.	Environment	Staff time ++ Internal partnerships
3 – 5 years	3.7 Review development controls in flood exposed areas based on climate scenario modelling. Develop updated flooding and special building overlay controls.	Advocate to State and Federal Government for improved planning controls and regulations for private development. Potential partners include: Melbourne Water, State Emergency Service.	Planning	Staff time ++ Internal partnerships External partnerships
	3.8 Pilot the use of climate considerations in new drainage design in priority areas identified through actions 3.2 and 3.3 with capacity to monitor and evaluate performance during flooding events.	Develop business case and budget bid to upgrade priority drains or consider developing a financial risk adaptation assessment for drainage. Potential partners include: Melbourne Water, City West Water, City of Melbourne (<i>already piloting some drainage designs</i>) and Australian Rainfall and Runoff 2016.	Asset Services	Staff time ++ Internal and external partnerships Risk Environment

Cool, biodiverse and water secure city

Timing	Actions		Opportunities, partnerships and advocacy	Responsibility	Resourcing
Now – 2 years	4.1	Prepare a biodiversity connectivity plan to enhance the movement of indigenous flora and fauna and contribute to resilience through population scale genetic diversity.		Environment	Staff time +
	4.2	Investigate options that model the impact of future climate scenarios on indigenous flora and fauna to inform decision making.		Environment	Staff time +
	4.3	Continue to develop opportunities to harvest stormwater and other alternative supplies that displace potable water use over time, in line with objectives in Brimbank's Sustainable Water Strategy. Monitor, evaluate and review effectiveness of alternative water options regularly.	Use of the Western Alliance for Greenhouse Action's 'How Well Are We Adapting' Framework. Partners may include: City West Water, Melbourne Water, Integrated Water Management working group (internal), Integrated Water Management Framework (Resilient Melbourne).	Environment Engineering Parks	Staff time + Internal partnership External partnerhip
	4.4	Update the Open Space Asset Management Plan to consider green infrastructure as assets within the context of managing urban heat island and extreme conditions.	Refer to the current project involving RMIT developing a cost effective approach to green asset mapping via LiDAR once it is complete.	Assets Urban Design Environment	Staff time ++ Partnership with RMIT

	4.5 Ensure Council continues to focus on effective water efficiency actions, such as warm season grass conversions which have reduced 50% of irrigation requirements for sports fields.	Parks Leisure Services Environment Urban Design Facilities and Major Projects	Staff time + Internal funding \$\$
	4.6 Through the Urban Forest Strategy, consider: <ul style="list-style-type: none"> • Undertaking urban heat island vulnerability mapping to achieve a targeted approach to urban cooling initiatives (such as prioritising tree planting and water sensitive urban design projects for areas of high heat vulnerability). • Review urban forest species to ensure they are fit for purpose in a changing climate and maximise urban heat reduction, without compromising local biodiversity values. 	Partners may include: Greening the West. Consider City of Melbourne's policy on climate adaptive street trees. Opportunities include funding from the National Government's Smart Cities and Suburbs Program.	Urban Design Environment Community Culture Planning and Development Staff time ++ Internal partnerships External funding \$\$\$
3 – 5 years	4.7 Establish monitoring and evaluation program for biodiversity to inform adaptive management and update strategies and processes, as new knowledge is available.	Opportunities include a partnership with DELWP or Port Phillip Western Port Catchment Management Authority. Investigation of Boroondara's Climate Change Biodiversity indicators, and Resilient Melbourne's Urban Forestry and biodiversity mapping project.	Environment Staff time ++ Internal partnerships External partnerships Possible funding required \$ Seek to attract funding into biodiversity and adaptive

management
programs.

Governance and risk

Timing	Actions	Opportunities, partnerships and advocacy	Responsibility	Resourcing
Now – 2 years	<p>5.1 Integrate Adaptation Priorities and Principles within updates to relevant policies and strategies across the organisation. Refer to the relevant policies and strategies that are identified in the Framework above.</p> <p>5.2 Consider general staff training to increase the understanding of climate change impacts and risks for the organisation, including an overview of the impacts for Council and our community, an understanding of how to frame the issue and response approaches.</p> <p>5.3 Establish monitoring and evaluation of climate change impacts on Council service delivery, including a process to capture and report service delivery data internally to Governance or Environment Departments.</p> <p>5.4 Monitor, review and update Council's climate change risks in the strategic and operational risk registers.</p>	<p>Investigate opportunities for funding through the State Government or adapt City of Greater Geelong's Climate Resilience Staff Training to suit Brimbank's context.</p> <p>Consider participation in global or regional initiatives which focus on public reporting and benchmarking climate adaptation actions. e.g Use of the Western Alliance for Greenhouse Action's 'How Well Are We Adapting' Framework</p>	All departments Environment Environment	Staff time ++ Internal or external funding \$ Staff time ++
3 – 5 years	<p>5.5 Develop clear lines of responsibility for particular risks within Council and of other responsible agencies. For example, incorporate climate adaptation reporting into Council reporting processes.</p> <p>5.6 Establish a cross-council adaptation working group to:</p> <ul style="list-style-type: none"> • Implement, review and report on adaptation framework actions to Council annually. • Monitor and evaluate actions and controls through annual risk register reporting. • Provide leadership and accountability. 	<p>Consider advocacy to State and Federal Government to establish clear roles and responsibilities between State Government, local government, land developers and community to control risk, achieve better outcomes and reduce potential legal and financial liability for Council.</p> <p>Consider links and involvement with the WAGA Adaptation Working Group to enhance organisational knowledge and capacity building.</p>	Environment Environment	Staff time + Staff time ++ Relevant departments

9. Appendix

Appendix 1. How Well Are We Adapting: a monitoring, evaluation and reporting framework for adaptation performance by councils

Strategies, pathways and plans are often implemented with the intention of assisting climate change adaptation. However, with the long decision timeframes and uncertainty of climate change impacts, we need to ask whether we are doing things right or doing the right things

With \$200,000 in funding from the Victorian Government, The Western Alliance for Greenhouse Action, in partnership with RMIT Centre for Urban Research and the Net Balance Foundation, produced a monitoring, evaluation and reporting (ME&R) framework and online reporting tool for adaptation performance – launched on 10 May 2017.

['How Well Are We Adapting'](#) currently monitors indicator sets under two themes: 'community wellbeing and emergency management' and 'open space and water security'.

Indicator sets for local government adaptation performance within the 'How Well Are We Adapting' Framework include:

Knowledge of service vulnerability or resilience to climate change impacts

- Home and Community Care service delivery
- Maternal and Child Health service delivery
- Effectiveness of alternative water supplies
- Monitoring of water efficiency applications in open space management

Organisational capacity to plan for and respond to the impacts

- Staff capacity to integrate climate change considerations in their daily roles
- Legislative responsibilities to consider climate change in decision making

Adequate resourcing to meet adaptation requirements

- Consideration of climate change in open space projects.
- Monitoring climate change impacts on open space maintenance budgets.
- Emergency management preparedness, planning and response relating to climate change

Participation and awareness

- Community participation and awareness

