

Climate Risk Foundational Action Plan 2023 – 2025

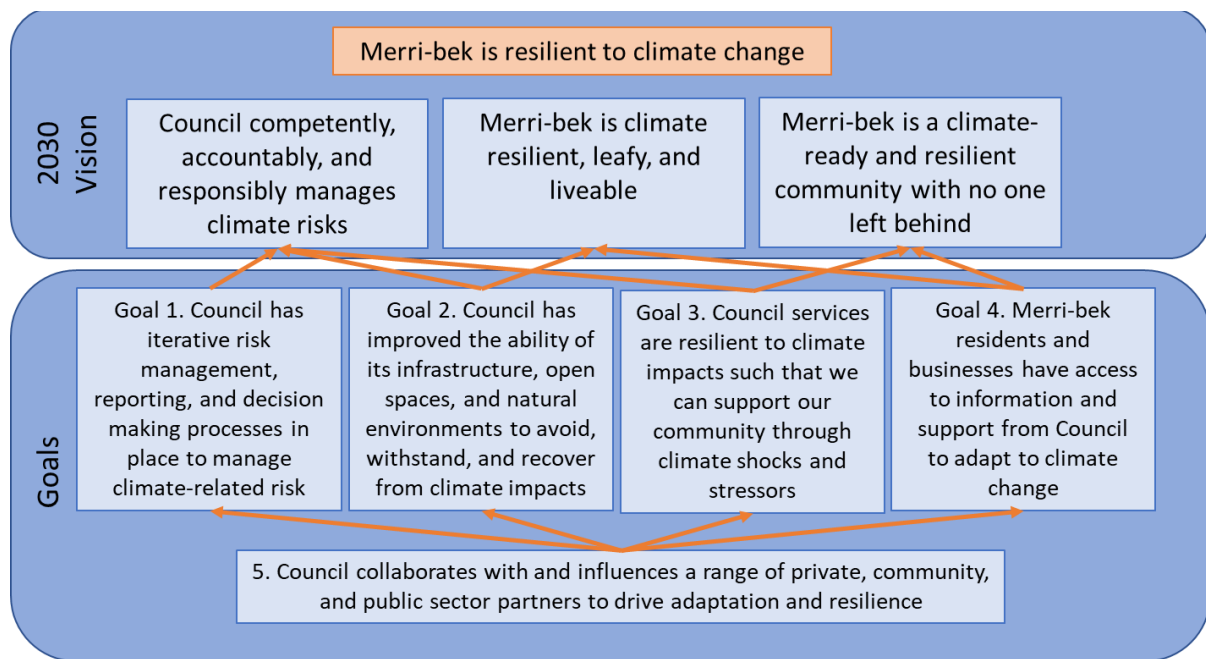
Climate Risk Foundational Action Plan

The Climate Change Act of 2017 and Local Government Act of 2020 require local Councils to manage climate risks provide the framework for the transition towards a climate resilient community and economy. Under this mandate, Merri-bek City Council's [Climate Risk Strategy 2022 – 2030](#) (the Strategy) was endorsed by Council in November 2022. The Strategy describes how Council will plan and respond to climate change. Our Vision is that, by 2030:

- Council competently, accountably, and responsively manages climate risks, and
- Merri-bek is climate resilient, leafy, and liveable; with
- A climate-ready and resilient community with no one left behind.

This Vision will be delivered through five Goals around:

1. Managing climate risk
2. Built and natural environments
3. Community services
4. Community and business
5. Partnership approaches



Delivering the Strategy requires an understanding of Council's climate-related risks and having actions to address them. To do this, Council needs to gather information, do risk assessments, and have clear decision-making processes. The first two years of implementing the Climate Risk Strategy will be focused on this two-year Foundational Action Plan for 2023/24 and 2024/25 (the Action Plan).

The 36 actions identified are foundational to:

- understand Council and community's current and future climate risks;
- integrate climate risk management into Council decision-making processes; and
- identify further actions needed to improve resilience.

The foundational actions will support us in understanding:

- What climate change means for Merri-bek across the municipality;
- The nature and extent of climate risk to Council infrastructure, open spaces, natural environments, and community services;
- The nature and extent of climate risk to the Merri-bek community, particularly vulnerable groups, and businesses;
- Council's tolerance for climate-related physical, financial, and liability risks; and
- How we build climate resilience in impacted infrastructure, open spaces, natural environments, and community services in cost-effective ways.

Developing and implementing the Strategy and Action Plan are overseen by the Climate Resilience Integration Board (CRIB) composed of Directors and Managers in Council. These actions will enable iterative risk management so Council can build its resilience and adapt to climate change.

Some of the actions have started and are operational processes, such as managing of risk registers, doing emergency management planning, and street cleansing in stormwater hotspot locations. These are in the Action Plan so they can be tracked for the Strategy's implementation. A subsequent action plan for 2026 to 2030 is expected to focus on the delivery of climate adaptation actions, particularly community-level interventions.

What approaches we have taken

In developing the foundational action plan, the following approaches were taken:

- Recognising actions that the organisation is already doing to manage climate risks across different areas
- Adopting a whole-of-organisation approach and having ownership of actions
- Integration into existing processes
- Ensuring adequate resources to complete each action
- Responding to the recommendations of an independent audit on climate change adaptation (Crowe, November 2020)
- Broad alignment with the Greater Melbourne Regional Climate Change Adaptation Strategy

What we know about climate risks



Our climate has already changed¹:

- Australia's climate has warmed by an average of 1.47°C since national records began in 1910.
- In the south-east of Australia, there has been a decrease of around 10 per cent in autumn and winter rainfall since the late 1990's.
- Although average rainfall is expected to decrease, a warmer atmosphere creates more likelihood of heavy downpours. So heavy rainfall events are becoming more intense.
- There has been an increase in extreme fire weather, and a longer fire season, across large parts of the country since the 1950s.

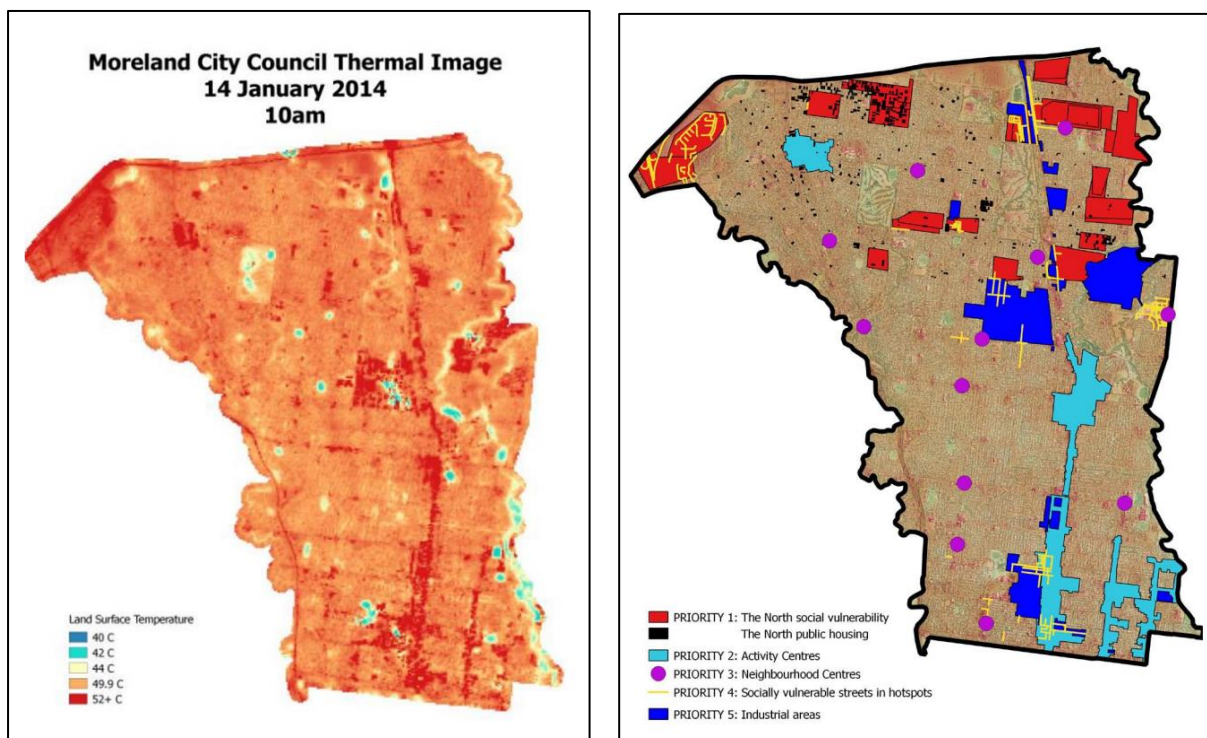
The future climate is expected to bring even more changes. Among other impacts, we are likely to have double the number of very hot days with average temperature increases up to 2.4 degrees by 2050.

¹ [CSIRO and The Bureau of Meteorology. State of the Climate 2022.](#)



Source: State of the Climate 2022.

In Merri-bek, we know that there are certain areas in our municipality that get hotter than other places because of the Urban Heat Island Effect. In 2014, satellite imagery captured surface temperatures in the municipality with many areas exceeding 52°C and up to 64°C in and around our activity centres. Areas with high social vulnerability, including places with public housing are also affected by high heat. Council has started work in this space. In 2017, implemented the [Cooling Communities](#) project that retrofitted a sample of social housing to alleviate heatwave impacts on the health of residents. As part of the Action Plan, we aim to understand more about the health impacts of heatwaves across different vulnerable groups.



Source: Moreland Urban Heat Island Effect Action Plan 2016/2017 to 2025/2026.²

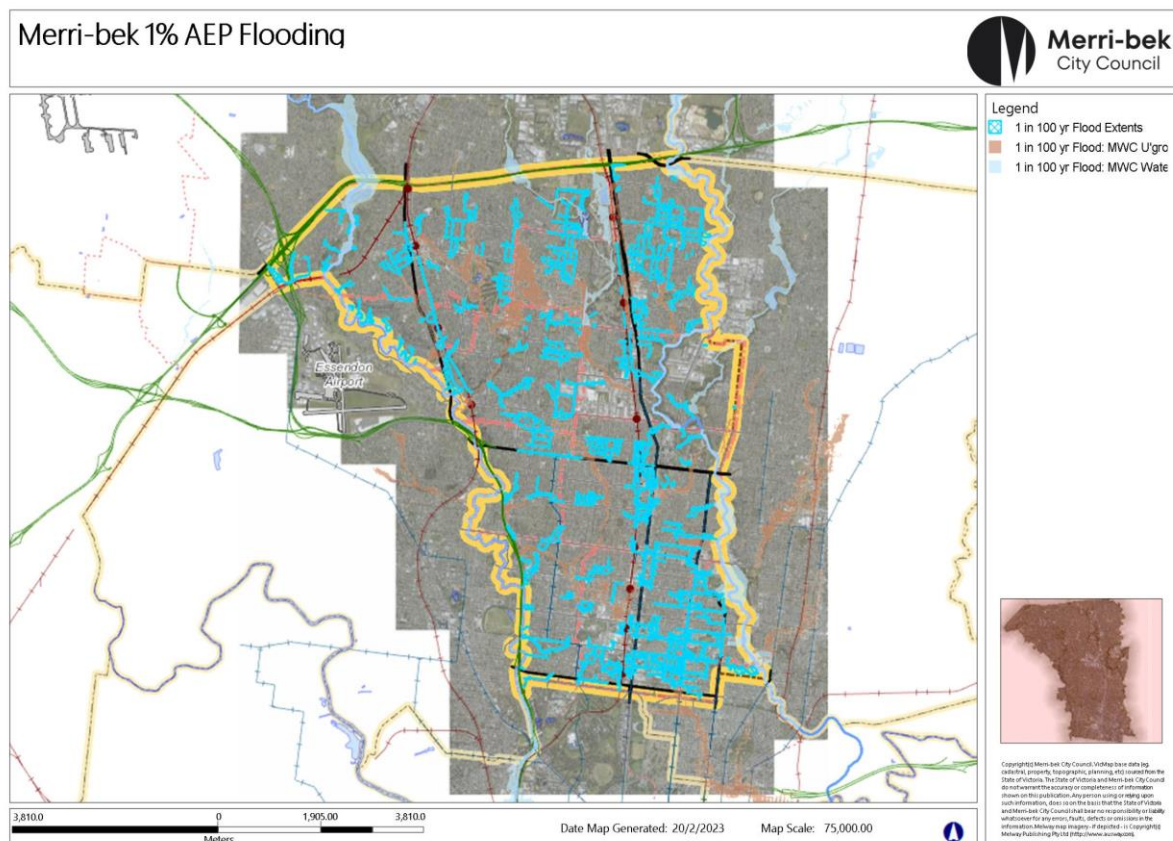
² [Urban Heat Island Effect Action Plan](#)

Initial urban stormwater mapping for Council's drainage network was shared with affected landowners in 2021. This mapping included increased rainfall intensity of 18.53% for climate change. This increase comes from updated national guidelines³ for preparing stormwater maps.

The mapping shows land affected by the 1% Annual Exceedance Probability (AEP) storm. A 1% AEP storm event is a high-intensity storm that has only a 1% statistical chance of being exceeded in any one year. During such a storm, heavy rainfall causes stormwater to go overland, along flow paths where there may be buildings, infrastructure, and properties.

In collaboration with Melbourne Water, further stormwater mapping has been done to refine Council's 2021 mapping. This updated mapping will inform better planning and building permit outcomes. This outcome will be achieved by using the maps to update the Merri-bek Planning Scheme with a Special Building Overlay, Schedule 2 (SBO2) for the Council's drainage network.

Melbourne Water is updating its stormwater mapping for its regional drainage network in the municipality. Increased rainfall intensity has also been factored into this mapping. Melbourne Water intends to update its SBO1 in the Merri-bek Planning Scheme.



Merri-bek 1% AEP Stormwater Map. Source: moreMaps as at 20/2/2023

³ Australian Rainfall and Runoff 2019.

In addition to heatwaves and stormwater flows, Merri-bek also faces the impacts of droughts, which can harm our open spaces and natural environment. Dry conditions can dry up plants and harm animals, especially those that need moist environments like frogs and skinks. Flooding along waterways can also damage infrastructure like footpaths and bridges, as well as deposit rubbish and mud as we saw in Merri Creek the heavy rains in October 2022.

What we are already doing to reduce climate risks and adapt to climate change

In managing risks at the organisational level, we:

- Established the Climate Resilience Integration Board as the governance mechanism for climate risk work;
- Developed the Climate Risk Strategy and engaged with the community;
- Conducted internal workshops to improve understanding of climate risks and how these can impact our work and service delivery;
- Began to disclose climate risks in the Annual Report for 2020 - 2021, following the guidance of the Task force for Climate-related Financial Disclosures;
- Integrated climate risk across our risk management approaches as guided by the Risk Management Policy. We do this by actively managing our risk register, identifying a strategic risk related to climate, and continuing to monitor emergent risks;
- Integrated climate risks across different strategies, plans, and policies. A few examples include the integration with the Municipal Health and Wellbeing Plan, Zero Carbon Merri-bek Framework and Action Plan, Urban Heat Island Effect Action Plan, Integrated Water Resources Management, Urban Forest, Nature Plan, Merri-bek Food Systems Strategy, , and the Community Infrastructure Plan;
- Implement and enforce the Planning Scheme, including requirements for landscaping, environmentally sustainable design, and drainage requirements; and
- Reporting the progress of work on climate risk management to the Audit and Risk Committee.

There are also many examples of how climate risk is integrated into our strategies, operations, and projects. Many Council buildings are built with sustainability and environmental outcomes in mind. Features such as external shading, double-glazed windows, and sealing for high thermal efficiency are considered in the design and construction of buildings that house key facilities. The [Glenroy Community Hub](#), for example, is the first public building in Australia to be Passive House Certified, meaning that it has a high standard of environmental performance including low-energy use and high-comfort to support the health and well-being of users, including during heatwaves.

The Zero Carbon Merri-bek Action Plan has supported resilience goals, including improving access to affordable energy and thermal comfort among low-income residents that will help them cope during heatwaves, and advocacy on energy efficiency in buildings and homes, including renters.

Council also has an Integrated Water Management Strategy and a 5- year Action Plan. As part of the actions, we are constructing wetlands and a growling grass frog pond in [Moomba Park](#). This helps clean stormwater and provide refuge and habitat for native wildlife, such as birds, frogs, and

insects, supporting them to better cope with additional pressures of climate change and urbanisation. In Brunswick, we have a few initiatives to better manage water. We are designing a swale and wetland in [Gilpin Park](#) that provides wildlife habitat, cools the surrounding environment, and that can help slow down stormwater runoff and reduce the risk of flash floods. In [Reaburn Reserve](#), we are building a raingarden, storm water harvesting, as well as upgrading the park with more canopy trees. This system helps to irrigate our parks and saves millions of litres of drinking water each year. Irrigated parks also provide cooling through plants' evapotranspiration, helping reduce the impacts of the urban heat island effect. We also initiatives at the design stage, including daylighting or rehabilitating part of Melville creek, and a raingarden and stormwater harvesting system at [Dunstan Reserve](#) for irrigation of the sports field and community garden. This project is ready for construction subject to external grant funding.

The Urban Forest Strategy and Nature Plan together support the resilience of our natural environment to the impacts of climate change. These support ecosystem functions that provide shade and cooling during in extreme heat and also support flood management by promoting infiltration of water into our soils and slowing down water to avoid stormwater flows. Over the next year, we are looking into tree planting in areas affected by urban heat. Actions in the Nature Plan also help our city become more resilient. Improving habitat for plants and animals in our area especially along our waterways makes them better cope with extreme weather.

Council's Food Systems Strategy, including its extension up to 2024 promotes resilient food production and food security, particularly with residents living with disadvantage. A warming climate and extreme weather events have been identified as a major risk to Melbourne's food security⁴. Actions under the Food Systems Strategy help in ensuring equitable access to nutritious food. Going beyond short-term food relief, the actions support people to have access to food in a way that upholds their dignity and meets their cultural and personal preferences.

These are only some examples of what we are doing in Council. There are many more actions being done by community groups and organisations, households, and individuals to contribute to a more resilient Merri-bek.

How we are working with partners

While Council is responding to the challenge of future climate impacts, the State and Federal governments, community organisations, developers, businesses, landowners, residents, and individuals all have a part to play.

There are areas that are outside the direct control of Council such as State-owned or managed roads and land and State projects and Melbourne Water owned drainage systems. Council maximises different opportunities to influence outcomes to benefit residents and the environment through our advocacy. Some examples where Council has led climate resilience advocacy are in considering [environmental sustainable development in the planning scheme](#), Infrastructure Victoria Strategy for 2025 - 2035, Parliamentary Inquiry into the 2022 Flood Event in Victoria, and the National Energy Performance Strategy.

⁴ Carey, R., Murphy, M., Alexandra, L., Sheridan, J., Larsen, K. and McGill, E. (2022) Building the resilience of Melbourne's food system – a roadmap. University of Melbourne, Australia. <https://doi.org/10.46580/124371>

Council engages with new developments through the planning approvals process. Council provides recommendations, conditions for approval, and enforcement related to [Environmentally Sustainable Development](#) (ESD) provisions and drainage. ESD requirements aim to limit the contribution of developments to the urban heat island effect, improve energy efficiency of buildings, and to manage stormwater runoff. To protect trees, there are also landscape guidelines and requirements in the planning scheme ([Amendment C189](#)) [and a register to protect significant trees](#).

Reading the Action Plan

The intent of the Action Plan is to support Merri-bek's transition to a climate-resilient city and community. It aims to deliver foundational actions that will guide transformation in how the Council delivers assets and services to the community under a changing climate.

During its implementation, priorities may need to be revised and reprioritised in an iterative way. This iterative approach will be based on our improved understanding of the Council's risks. For example, implementing these actions may reveal time-critical, high likelihood, and high impact climate risks. If this happens, they will be prioritised for CRIB consideration may be referred to Executive and Council to address.

Actions are organised into categories of Tier 1 and Tier 2. Tier 1 actions are typically the activities that provide information, evidence, and processes to further enable other actions. Tier 2 actions represent those that can be subsequently done and may have dependencies on Tier 1 actions.

The Action Plan is organised around Goals, objectives, desired outcomes, and specific actions. The tables below state the lead and supporting Council Units or Branches that are responsible for the delivery of actions. The tables also show expected timelines for each action.

Goal 1 – Managing climate risk – 16 Actions

By 2025, Council has iterative risk management, reporting and decision-making processes in place to manage climate-related risk to assets, service delivery, finances, and liabilities.

To effectively manage climate risk and deliver adaptation outcomes, Council requires effective internal processes to understand the risk and integrate it into organisational decision-making. These systems are foundational to prioritising, identifying, and planning climate adaptation action across the other four goals. Hence, this Goal should be delivered by 2025.

In line with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD), Council will establish processes to actively monitor and transparently report on climate risk. Council will also build capacity and capability to provide services under climate change through workforce training and planning systems.

OBJECTIVES and desired Outcomes	Lead Unit or Branch	Supporting Unit or Branch	Delivery Year/s	Priority
1.1. TO IMPROVE COUNCIL UNDERSTANDING OF ORGANISATIONAL AND COMMUNITY CLIMATE CHANGE RISK <u>EXPOSURE</u> AND <u>VULNERABILITY</u>, BASED ON HIGH-QUALITY INFORMATION ON CLIMATE CHANGE <u>HAZARDS</u>				
1.1.1 Council officers have access to climate change scenarios, and locally relevant climate projections and data, to inform decision-making, asset design, service delivery, environmental management, risk and vulnerability assessment and monitoring.				
1. Compile data and information on climate hazards, risks, and vulnerability Compile climate change data and projections resources and make these available to Council officers through the intranet (Grapevine) and GIS system (moreMaps). Compile, summarise, and disseminate climate change studies, particularly on risks, impacts, vulnerability, and adaptation activities that are relevant to Merri-bek. These include studies on health impacts of heatwaves	Sustainability and Climate Branch	ICT / GIS Coordinator Strategy and Research Asset Management Community Engagement Community Development and Social Policy	FY 23/24 to FY 24/25	Tier 1

<p>across different groups, impacts of open spaces, water in the landscape, and canopy cover to cooling, and other studies.</p> <p>Update the geographic information system (moreMaps) with maps that are relevant to climate-risk such as flood risk maps, thermal maps, vulnerability maps, and others, including their metadata, to support ongoing monitoring and assessment of climate risk and vulnerability across infrastructure, open spaces, natural environments, and community services.</p> <p>Produce list of Council assets in at-risk areas for discussion with asset management and asset owners/managers on risk management planning.</p> <p>The results of the mapping will contribute to the implementation of Actions 1 and 19.</p>		Climate Resilience Integration Board		
<p>2. Conduct a Merri-bek climate vulnerability analysis, which looks at areas in the city with compounded vulnerabilities and hazard exposure.</p> <p>Conduct a desktop climate vulnerability analysis of the Merri-bek community based on local climate risks and hazards, drawing on existing ABS data and literature on the vulnerability of culturally and linguistically diverse group, first nations people, people with disability, and other disadvantaged groups and physical risk maps in the Merri-bek community.</p>	Strategy and Research Unit	<p>Sustainability and Climate Branch</p> <p>Community Development and Social Policy</p> <p>ICT/GIS Coordinator</p> <p>Community Engagement</p>	FY 23/24 to FY 24/25	Tier 1
<p>1.1.1. Council officers and decision-makers understand the likely range of possible future climate change impacts on the municipality, including sudden shocks and long-term stressors, and know how to use this information to appropriately inform decision-making.</p>				
<p>3. Conduct training and development activities, both general and targeted, to build capability across Council to respond to current and future changes</p>	Sustainability and Climate Branch	People and Safety	FY 23/24	Tier 1

<p>Develop and deliver training modules for key officers on the likely range of future climate impacts, including sudden shocks and longer-term stressors as relevant to Council planning, operations, and service delivery.</p> <p>Seek out specialised training for climate risk in key areas such as asset management, enterprise risk management, financial reporting, climate resilient and sustainable materials in infrastructure, and others for relevant officers to participate in.</p>		Organisational Performance		
<p>1.1.2. Council decision-making is informed by established tools and processes to regularly monitor, review and evaluate, the changing exposure and vulnerability of infrastructure, open spaces, natural environments, and community services, to:</p> <ul style="list-style-type: none"> o physical and structural risks associated with climate hazards, o risks to their functional performance as a result of climate change, and o transition and liability risks arising from Council's response to climate change. <p>Building on 1.1.1 and 1.1.2</p>				
<p>4. Review Council capital works and asset management processes in order to integrate climate risk-based approaches and resilience building into decision making processes.</p> <p>Review Council capital works and asset maintenance processes and develop recommendations to ensure Council processes consider and manage for climate risks⁵. Implementation of recommendations will be done under action 1.4.1.1.</p>	<p>Capital Works Planning and Delivery (including Building Projects, Building Maintenance, Asset Management)</p> <p>Open Space and Environment</p> <p>Finance Unit (Asset Accounting)</p>	<p>Urban Design</p> <p>Open Space Maintenance</p> <p>City Works</p> <p>Building Maintenance</p> <p>Property</p> <p>Transport (Transport and Development Engineering)</p>	FY 23/24 to 24/25	Tier 1

⁵ This responds to the climate change adaptation audit recommendation by Crowe in 2020 to “document the decision-making approach best suited for the adequate integration of climate change adaptation into business decision-making processes”.

		<p>Sustainable Built Environment</p> <p>Other Units and Branches including those that provide services in or lease to service providers such as Aquatics and Leisure, Early Years, Community Development</p>		
<p>1.1.3. Council officers and decision-makers understand and use appropriate data, tools and approaches, including climate change projections, scenario planning and business continuity planning, to understand how climate change is likely to impact the delivery of council services at different timescales, including:</p> <ul style="list-style-type: none"> ○ The ability of council to deliver the service, ○ The ability of the community to access the services, and ○ Increases or decreases in demand for services, or the need for entirely new services. <p><i>Building on 1.1.1 and 1.1.2</i></p>				
<p>5. Review climate-related risks in the Risk Register</p> <p>Considering climate data and projections, risk maps, and other sources of information on climate risk, review strategic and operational risks to systematically assess the climate risks to infrastructure, open spaces, natural environments, and community services considering:</p> <ul style="list-style-type: none"> ○ physical and structural risks associated with climate hazards, ○ risks to functional performance as a result of climate change, and ○ transition and liability risks resulting from Council's response to climate change 	<p>Risk Owners</p> <p>Climate Resilience Integration Board</p>	<p>Integrity, Risk, and Resilience Unit</p>	<p>FY 23/24 to FY 24/25</p>	<p>Tier 1</p>

1.1.4. Council monitors and understands the changing exposure and vulnerability of the Merri-bek community, residents, and businesses (especially vulnerable cohorts) to the risks and impacts of climate change, regularly reviews this through established processes (such as the Risk Register) and forward scans for new and emerging risks. Related to 1.1.3				
6. Develop climate risk tolerance statement for endorsement by Council and integration into decision-making. The climate risk tolerance statement may outline the levels of financial, liability, workforce, and service delivery risk Council is willing to accept in policy, program, investment, and operational decisions.	Integrity, Risk, and Resilience Unit Sustainability and Climate Branch		FY 23/24	Tier 1
7. Identify and monitor emerging climate risks Ensure that existing risk management systems and processes adequately identify emerging risks and regularly monitor, report, and evaluate these as they change over time.	Integrity, Risk, and Resilience Unit	Climate Resilience Integration Board	FY 23/24 to FY 24/25	Tier 1
1.2 TO MAKE INFORMED DECISIONS ON PRIORITISING, PREPARING FOR AND PROACTIVELY ADDRESSING CLIMATE RISK, DRIVING CLIMATE ADAPTATION AND BUILDING RESILIENCE				
1.2.1 Council design, delivery and management of its infrastructure, open spaces, natural environments, and community services is informed by an understanding of the level of climate-related financial and liability risk it is willing to tolerate; Council actively limits the creation of future financial risk.				
8. Embed climate risk in policy, strategy, and action plan development as refreshes/renewals occur, and as new policy is developed Embed consideration of climate-related risks and impacts into policy development updates occurring and including new strategies and action plans and their respective monitoring frameworks. Priority strategies currently being reviewed / renewed include	Open Space Design and Development Transport (Transport and Development Engineering Units)	Governance Unit Sustainability and Climate Branch Corporate Planning	FY 23/24 to FY 24/25	Tier 1

<p>the Council Plan and Municipal Public Health and Wellbeing Plan, Open Space Strategy, Strategic Property Framework, Risk Management Policy (internal), Transport Strategy, Economic Development Action Plan, Circular Economy Strategy, Vehicle Crossing (Driveways) Policy, and Sustainable Buildings Policy.</p>	<p>Integrity, Risk and Resilience Unit</p> <p>Property</p> <p>Sustainable Built Environment</p> <p>Economic Development</p> <p>Sustainable Communities</p> <p>Community Development and Social Policy</p> <p>Community Wellbeing Branch</p>			
<p>1.2.2 Council has embedded clear and transparent tools for considering climate adaptation implications and trade-offs in decision-making across its infrastructure, open spaces, natural environments, and service provision functions. Building on 1.1.4 and 1.2.1</p>				
<p>1.3 TO IMPROVE MONITORING, REPORTING AND EVALUATION OF CLIMATE RISKS AND ADAPTATION ACTION TO BETTER INFORM INVESTMENT DECISIONS AND RESOURCE ALLOCATION</p>				
<p>1.3.1 Council officers actively monitor and evaluate the outcomes of adaptation action against new and emerging climate risks to its infrastructure, open spaces, natural environments and community services. Council has embedded a culture of evaluation and learning which influences and informs climate change adaptation decision-making. Building on 1.1.3, 1.2.1</p>				

<p>9. Establish a monitoring and evaluation framework for the Climate Risk Strategy and Action Plan</p> <p>Develop the monitoring and evaluation framework including output and outcome-level indicators to achieve risk management, resilience, and adaptation objectives in Merri-bek,</p> <p>Map actions and indicators across other relevant strategies and action plans that contribute to reducing climate risks such as the Nature Plan, Urban Forest Strategy and Action Plan, Integrated Water Management Action Plan and other relevant plans and where they link to the Climate Risk Foundational Action Plan outcomes.</p>	Sustainability and Climate Branch	<p>Strategy and Research Unit</p> <p>Relevant Units</p> <p>Open Space Design and Development</p> <p>Urban Forest</p> <p>Sustainable Built Environment</p> <p>Corporate Planning</p> <p>Integrity, Risk, and Resilience</p>	FY 23/24	Tier 1
<p>10. Develop the Climate Risk Stage 2 Action Plan for 2026 – 2030</p> <p>Based on initial learning from the Climate Risk Stage 2 Action Plan for 2023 – 2025, formulate the next iteration of the action plan to achieve goals and objectives in the Climate Risk Strategy. Conduct robust community engagement process, particularly targeting feedback from vulnerable populations.</p>	Sustainability and Climate Branch	Climate Resilience Integration Board	FY 24/25	Tier 1
<p>1.3.2 Council officers actively monitor climate adaptation support provided to residents and businesses, including through Zero Carbon Merri-bek community engagement.</p>				
11. Report and communicate progress against actions	Sustainability and Climate Branch	Finance	FY 23/24 to FY 24/25	Tier 1

Report risk management, resilience, and adaptation actions to the community and public through different channels such as the Merri-bek City Council Sustainability and Climate Annual report, Council Action Plan reporting, and other relevant channels.		Governance Communications		
1.4 TO IMPROVE THE PROACTIVE AND ACCOUNTABLE MANAGEMENT OF CLIMATE-RELATED LIABILITY AND FINANCIAL RISK WITHIN THE ORGANISATION				
1.4.1 Council effectively integrates climate risk and opportunity into financial management and strategic planning processes to manage the impacts of climate change on the organisation. <i>Building on 1.1.1, 1.1.2, 1.1.3, 1.1.4 and 1.2.1</i>				
12. Develop and implement an approach to budget planning that considers climate risks Following the recommendations of the process review under 1.1.3, develop and implement an approach to include climate resilience and adaptation as criteria in the decision-making framework for budget allocation and investment planning.	Finance	Capital Works Planning and Delivery Strategic Planning Oversight Committee	FY 24/25	Tier 1
1.4.2 Council is transparent in its accountability for climate-related risks and regularly reports on them within our organisation and to the community. <i>Building on 1.1.3, 1.1.4, 1.3.1 and 1.4.1</i>				
13. Conduct a financial expenditure review to record the costs of climate change Collect baseline data on costs of climate events to the Council, including costs of repairs, insurance claims, preparedness activities and additional operational costs, costs of capital works delays, lost productivity, and other costs	Finance	Asset management	FY 23/24	Tier 1

14. Report on climate risks in financial reports	Sustainability and Climate Branch	Finance	FY 23/24 to FY 24/25	Tier 1
Report annually on climate risks in the Merri-bek Annual Report following the recommendations of the Task Force on Climate-related Disclosures (TCFD).				
1.5 TO IMPROVE THE ABILITY OF OUR WORKFORCE TO DELIVER PRIORITY SERVICES WHILE RESPONDING TO THE IMPACTS OF CLIMATE CHANGE				
1.5.1 Council officers and decision-makers have the training, knowledge, and capability to make critical decisions informed by current and probable future climate contexts. Related to 1.1.1, 1.1.2, 1.1.3 and 1.1.4				
15. Establish a Community of Practice in Merri-bek City Council	Sustainability and Climate	People and Safety Organisational Performance	FY 23/24 to FY 24/25	Tier 2
Establish a community of practice among Council for officers working to integrate climate-related risk and resilience into their service area to share information and coordinate actions to maximise impact.				
1.5.1 Council operational planning is used to proactively manage officer safety, wellbeing, and workloads in response to the challenges posed by climate change.				
16. Review Occupational Health and Safety policies and procedures in particular, the Revised Heat Procedure and Thermal Comfort Policy to manage climate-related risks	HR, Safety, and Wellbeing Sustainable Built Environment	Climate Resilience Integration Board	FY 23/24 to FY 24/25	Tier 1
Review Occupational Health and Safety policies and procedures and their implementation to ensure that OHS risks related to climate are managed to ensure staff safety and wellbeing particularly for staff who work outdoors.				

Related strategies and initiatives	
<ul style="list-style-type: none"> ○ Voluntary disclosures in line with the recommendations of the Taskforce on Climate-related Financial Risk ○ 10-year Financial Plan ○ 4-year Budget ○ Procurement Policy 2021-25 	<ul style="list-style-type: none"> ○ Public Transparency Policy ○ Enterprise Risk Management Policy ○ Thermal Comfort Policy ○ Occupational Health and Safety Policy ○ Heat Management Procedure ○ Bushfire Smoke Hazards Procedure

Goal 2 – Built and natural environments – 9 Actions

By 2030, Council has improved the ability of its infrastructure, open spaces and natural environments to avoid, withstand and recover from climate impacts, while continuing to provide for community wellbeing, amenity and ecosystem services.

Built and natural environments define how urban populations experience climate change. The Urban Heat Island Effect exacerbates the severity of increasingly high temperatures and heatwaves for urban populations while reduced rainfall limits the establishment and retention of tree cover.

Climate change can impact on Council's ability to provide effective services, and community members ability to access those services. Managing Councils built and natural environments therefore requires understanding the service delivery purpose of Council facilities, e.g. maternal and child health services require facilities that are safely accessible during extreme weather and which are comfortable for staff, mothers and new babies.

Natural environments and open spaces are critical for urban amenity under climate change as they provide ecosystem services such as shade, water retention and cool transit corridors. These areas also support diverse plant and animal species and community wellbeing. Effective Council action is necessary to maintain and improve these spaces under climate change.

OBJECTIVES and desired Outcomes	Lead Unit or Branch	Supporting Unit or Branch	Delivery Year/s	Priority
2.1 TO IMPROVE THE CLIMATE ADAPTATION AND RESILIENCE OF NEW AND EXISTING HIGH-PRIORITY COUNCIL INFRASTRUCTURE TO SUPPORT THE DELIVERY OF COUNCIL SERVICES				
2.1.1 Council understands the changing climate-related risk, vulnerability and exposure of its infrastructure, open spaces, and natural environments, has prioritised these and is developing and implementing appropriate responses. <i>Building on 1.1.3 and 1.1.4</i>				
17. Assess climate risk for priority Council infrastructure Conduct audits of key Council assets to assess climate risks, safety, and serviceability of selected assets and develop recommendations for mitigating risks, particularly to heatwaves, storms, and stormwater flooding. This action is related to the Council Action Plan Action 127.	Sustainable Built Environment Unit	Aged and Community Services Early Years and Youth Municipal Emergency Management Officer	Process started in FY 22/23 continuing into FY 23/24	Tier 1

		Emergency Management Coordinator		
		Library Services		
		Aquatics and Leisure Services		
		Community Development and Social Policy		
		Open Space and Environment		
		Building Maintenance		
		Asset Management		
2.1.2 Based on Council's risk tolerance, highest priority council services, centres, hubs and leased properties are built, adapted and operated to remain accessible, safe and serviceable during chronic and extreme weather events, including high heat days. Building on 1.1.4, 1.2.1 and 1.3.1				
18. Review options to proactively manage assets for resilience to climate risks and review how damages to Council assets from extreme events are captured in audits and condition assessments and recorded in the asset management system (Assetic). Costs of loss and damage from extreme events will be calculated and will inform the TCFD section of the annual report as described in 1.4.2.1.	Asset Management Steering Committee	Building Maintenance City Works Building Maintenance Open Space Maintenance Street Cleansing Capital Works Planning and Delivery (Asset Management)	FY 23/24	Tier 1

		Transport Unit		
		Finance		
<p>19. Monitor at-risk assets identified in Action 1. (e.g. assets in flood zones), and establish thresholds, triggers, or alerts for asset management responses.</p> <p>Thresholds for asset management responses identified (e.g. floor levels below maximum flood depth in 1% AEP event, certain levels of building performance).</p>	Asset Management Coordination	<p>Aged and Community Services</p> <p>Early Years and Youth</p> <p>Municipal Emergency Management Officer</p> <p>Emergency Management Coordinator</p> <p>Library Services</p> <p>Aquatics and Leisure Services</p> <p>Community Development and Social Policy</p> <p>Open Space and Environment</p> <p>Transport Unit</p> <p>Property</p> <p>Building Maintenance</p> <p>Asset Management</p>	FY 24/25	Tier 1

2.1.3 Council's new designs and developments, as well as upgrades and retrofits of existing priority infrastructure, contribute to the climate resilience of the community and the services those assets support, in line with Council's risk tolerance. Building on 1.1.4, 1.1.5, 1.2.1 and 1.3.1				
20. Continue to implement Sustainable Buildings Policy (ESD) in Capital Works Building Program Continue to implement the Sustainable Buildings Policy in all Council capital works on buildings to support climate resilience outcomes such as energy efficiency and insulation for thermal comfort and other recommendations.	Capital Works Planning and Delivery	Sustainable Built Environment Unit	FY 23/24 to FY 24/25	Tier 1
21. Develop a Sustainable Infrastructure Policy A Sustainable Infrastructure Policy will provide guidelines on sustainability standards across Council infrastructure beyond buildings. Provisions in the policy to support climate resilience outcomes include for example, the preservation of trees, integration of water sensitive urban design assets, and increase of permeable surfaces.	Sustainable Built Environment	Capital Works Planning and Delivery Urban Design Transport City Works Open Space and Environment	FY 23/24 to FY 24/25	Tier 2
22. Review and trial industry standards on climate resilient and sustainable infrastructure and materials Review climate resilient and sustainable infrastructure and materials specifications and processes based on industry standards such as from AS 5334-2013 Climate change adaptation for settlements and infrastructure - A risk-based approach, IPWEA Practice Note 12.2 on Climate Resilient Materials for Infrastructure Assets, Infrastructure Sustainability Council of Australia, Green Star Communities, and other guidance. Develop recommendations on what	Sustainable Built Environment Unit	Capital Works Planning and Delivery Urban Design Transport City Works Open Space and Environment	FY 23/24 to 24/25	Tier 2

specifications and processes have the potential for trialling and adoption such as through the Merri-bek Technical Notes, technical specification s for tender documents, and other guidance documents.				
2.1.4 Council has established processes to rapidly recover from climate impacts to its infrastructure, open spaces and natural environments, learn from these experiences and rebuild to a better adapted state. Building on 1.3.1				
23. Conduct Street Cleansing for flood prevention Use flood risk maps and other information to identify priority cleaning activities, particularly in preparation for storms and/or wet winter season.	Street Cleansing Unit		FY 23/24 to FY 24/25	Tier 1
24. Review service delivery in core Council services for climate resilience Conduct climate risks scenario analysis to look at short, medium, and long-term impacts in service delivery across a subset of critical functions or essential council services, such as building maintenance, road maintenance, and tree maintenance.	Sustainability and Climate Branch	City Works Open Space Maintenance Building Maintenance Animal Management and Local Laws Compliance Operations Unit Waste Services	FY 24/25	Tier 2

2.2 TO IMPROVE THE CLIMATE ADAPTATION AND RESILIENCE OF NEW AND EXISTING HIGH-PRIORITY COUNCIL OPEN SPACES AND NATURAL ENVIRONMENTS TO SUPPORT COMMUNITY WELLBEING, DELIVER ECOSYSTEM SERVICES, AND PROTECT PLANT AND ANIMAL HEALTH.

2.2.1 Council designs its open spaces to contribute to local cooling and flood risk mitigation, to reduce community exposure to climate impacts, especially heat, and to improve climate-related community health and wellbeing outcomes.
Building on 1.1.4, 1.1.6 and 1.2.1

2.2.2 Council designs and manages its open spaces and natural environments to withstand and function under hotter, drier conditions, as well as higher flood risk conditions, while fostering biodiversity and ecosystem services.
Building on 1.1.3 and 1.1.4

25. Review the implementation of the Urban Heat Island Effect Action Plan and Cooling the Upfield Corridor Action Plan	Sustainability and Climate Branch	Urban Design	FY 23/24 to 24/25	Tier 1
Review outputs and contribution to strategic outcomes of the implementation of the UHIE Action Plan from FY 2016/17 and develop recommendations for subsequent phase. Review the progress of implementation of the Cooling the Upfield Corridor Action Plan 2018 – 2029, including options to plant trees and vegetation in areas that are vulnerable to UHIE.	Urban Forest	Open Space and Environment Transport (Transport and Development Engineering Units)		

Related strategies and initiatives

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| <ul style="list-style-type: none"> o Integrated Water Management Strategy 2040 o Asset Management Policy o Developing and implementing a 10-year Asset Plan o Drainage Asset Management Strategy o Urban Heat Island Effect Action Plan o Urban Forest Strategy o Open Space Strategy o Community Infrastructure Plan o Zero Carbon Merri-bek – Climate Emergency Action Plan | <ul style="list-style-type: none"> o Nature Plan o Park Close to Home Framework o Towards a Water Sensitive City o Cooling the Upfield Corridor - Action Plan o Sustainable (Council) Buildings Policy o Victorian Built Environment Adaptation action plan o Victorian Natural Environment Adaptation Action Plan o Victorian Water Cycle Adaptation Action Plan |
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Goal 3 – Community services – 3 Actions

By 2030, Council services are resilient to climate impacts such that we can support our community through the shocks and stressors associated with climate change.

Council Plan Strategic Objective 3.3 recognises the importance of effective climate change adaptation to delivering health and wellbeing outcomes to the Merri-bek community. Older people, infants and young children and other vulnerable persons are most at risk to the impacts of climate change, with potential for significant health impacts and even death. Climate change is also likely to contribute to poor mental health and increase the vulnerability of sections of the broader population. In combination, the demand for Councils' community services is likely to increase, while the provision of these services will become more challenging through chronic and extreme events.

The demand placed on Council's emergency management functions is already increasing in response to more frequent and severe weather events. Proactive planning is necessary to allow Council to continue delivering these services as demand increases, while also providing support to neighbouring local governments through partnerships arrangements.

OBJECTIVES and desired Outcomes	Lead Unit or Branch	Supporting Unit or Branch	Delivery Year/s	Priority
3.1 TO BUILD THE RESILIENCE OF ESSENTIAL COUNCIL SERVICES TO ENSURE SERVICE CONTINUITY THROUGH CHRONIC AND EXTREME CLIMATE EVENTS				
3.1.1 Council understands the community's changing vulnerability to climate impacts, has prioritised these and is developing and implementing appropriate responses through its services. <i>Building on 1.1.5, 1.2.1, and 1.3.1.</i>				
26. Review service delivery in early years and aged and community services for climate resilience Pilot climate resilient service delivery assessments to understand the vulnerability and exposure of Council's community services to climate risk and develop recommendations to improve processes, business continuity plans, and protocols. Share key lessons and outcomes with community service provider networks and neighbourhood houses.	Early Years and Youth Branch Aged and Community Services	Sustainability and Climate Branch	Process started in FY 22/23 to FY 23/24	Tier 1

	Community Development and Social Policy			
3.1.2	Council's business continuity, service resilience and disaster recovery planning include provision of prioritised services through acute, chronic, sustained and compound climate events, in line with the organisational risk tolerance statement and climate scenarios. <i>Building on 1.1.2, 1.1.4, 1.2.1 and 1.3.1</i>			
3.1.3	Council undertakes medium/long-term service planning based on a range of climate scenarios and expected changes in the demand on services in these plausible futures. <i>Building on 1.1.4, 1.3.1 and 3.1.1</i>			
3.2 TO IMPROVE COUNCIL'S EMERGENCY MANAGEMENT CAPACITY IN LINE WITH PREPAREDNESS FOR LIKELY FUTURE CLIMATE CHANGE EVENTS				
3.2.1	Council integrates and draws on climate scenarios, climate change projections and adaptation planning approaches to ensure its emergency planning and preparedness accounts for future climate change impacts and responds to the needs of the most vulnerable. <i>Building on 1.1.1, 1.1.2, 1.1.3 and 1.1.4</i>			
27. Conduct emergency management planning with consideration of climate risks Continue to review business continuity, service delivery, and disaster recovery plans for resilience to future acute and long-term climate risks and impacts.	Municipal Emergency Management Officer		FY 23/24 to FY 24/25	Tier 1
3.2.2	Council has established processes to rapidly recover from climate events that draw on our emergency management capability, learn from these and rebuild to a better adapted state. <i>Building on 1.3.3 and 1.3.4</i>			
28. Evaluate emergency management response and recovery actions for continuous improvement Continue to evaluate emergency response and recovery actions after events and identify lessons learned for continuous improvement particularly	Municipal Emergency Management Officer		FY 23/24 to FY 24/25	Tier 1

those relevant to building longer term climate resilience				
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Related strategies and initiatives	
<ul style="list-style-type: none"> o Municipal Emergency Management Plan o Human Rights Policy o Social Cohesion Plan o Community Infrastructure Plan o Children, Young People and Families Plan o Living and Aging Well Framework o Disability Access and Inclusion Plan 	<ul style="list-style-type: none"> o Early Years Infrastructure Plan o Aquatic and Leisure Strategy 2018 -2038 o Victorian Health and Human Services Climate Change Adaptation Action Plan 2022-2026 o Victorian Public Health and Wellbeing Plan 2019 - 2023

Goal 4 – Community and business – 4 Actions

By 2030, Merri-bek residents and businesses have access to relevant and appropriate information and support from Council to take meaningful action to adapt and build resilience to climate change.

Council recognises that communities and businesses face significant and increasing challenges due to climate change and other emerging risks. Understanding these challenges and having access to appropriate support can help drive community and business climate adaptation. Council action can empower individuals to make effective choices to reduce their exposure to climate risk and build resilience.

Climate resilience for communities and businesses is a function of social and economic factors, as well as environmental ones. Resilient communities are highly connected, equitable and just. Building the climate resilience of Merri-bek's community is therefore closely tied to the effective delivery of Council's work to protect and enhance human rights, local affordable housing, resilient food systems and social cohesion. These outcomes underpin people's sense of safety, belonging and willingness to help one another, all of which support resilience.

OBJECTIVES and desired Outcomes	Lead Unit or Branch	Supporting Unit or Branch	Delivery Year/s	Priority
4.1 TO SUPPORT AND EMPOWER THE MERRI-BEK COMMUNITY, AND BUSINESSES, IN IDENTIFYING HOW THEY ARE IMPACTED BY CLIMATE CHANGE, NOW AND INTO THE FUTURE, AND IN ACTING TO PROACTIVELY MANAGE THESE IMPACTS				
4.1.1 Council understands the barriers and challenges Merri-bek residents face in adapting to climate change and building resilience. <i>Building on 1.1.5, and 1.2.2</i> <i>Related to 3.1.1</i>				
29. Conduct research on what actions are taken by community members to cope with heatwaves and storms and any barriers and challenges to accessing Council services This work helps Council establish a baseline for existing coping mechanisms of residents, particularly the most vulnerable cohorts, to heatwaves and storms. The information collected	Sustainability and Climate Branch Strategy and Research	Community Development and Social Policy Emergency Management Coordinator	FY24/25	Tier 1

can inform how Council can best support building of individual and community resilience and understand any changes to the demand for or accessibility of Council services during extreme events.		Aged and Community Services		
<p>30. Map existing programs and projects and identify those that could be expanded to provide resilience and adaptation support to community, particularly the most vulnerable</p> <p>Investigate opportunities within existing state and Council programs such as household and community grants, Sustainable Strata, Environmental Upgrade Finance, home maintenance program, to maximise resilience and adaptation outcomes. Investigate opportunities for initiatives with libraries and arts and culture like making draft stoppers or having a contest among neighbourhoods to promote resilient measures in households</p>	Sustainability and Climate Branch	<p>Economic Development</p> <p>Community Development and Social Policy</p> <p>Aged and Community Services</p> <p>Strategy and Research</p>	FY 23/24	Tier 2
<p>4.1.2 Council works with partners and provides appropriate support to Merri-bek residents and community, especially vulnerable cohorts, to empower them in proactively adapting to climate change and building resilience. <i>Building on 1.1.5 and 5.1.2</i> <i>Related to 3.1.1</i></p>				
<p>31. Review the guidelines for the energy subsidies for low-income households</p> <p>Review and revise as appropriate the existing solar and thermal subsidy program to improve climate justice and resilience outcomes.</p>	Sustainable Communities		FY 23/24	Tier 1

4.2 TO RAISE COMMUNITY AWARENESS AND SUPPORT COMMUNITY CLIMATE ACTION THROUGH A COORDINATED CLIMATE COMMUNICATION APPROACH				
4.2.1 Council implements a comprehensive climate communications plan to support community and business.				
4.2.2 Council officers and programs provide locally relevant climate change information to residents and businesses in an appropriate and accessible manner to reduce information and knowledge barriers. <i>Building on 1.1.1, 1.1.5, 4.1.2 and 4.2.1</i>				
32. Continue to inform the community on risks/preparedness (e.g. heatwaves and flood events) and develop targeted climate risk and community resilience communication products Develop targeted communications products to inform the community on climate risks in Merri-bek, including through maps, and resilience actions that can be undertaken by the community. Work in partnership with community service provider networks and neighbourhood houses.	Communications Sustainability and Climate Branch	Emergency Management Community Development and Social Policy	FY 23/24	Tier 1

Related strategies and initiatives	
<ul style="list-style-type: none"> o Social Cohesion Plan o Human Rights Policy (2022) o Gender Equality Statement o Social Cohesion Plan (2021 – 2025) o Disability Access and Inclusion Plan (2021 – 2025) 	<ul style="list-style-type: none"> o Economic Development Strategy o Industrial Land Use Strategy o Affordable Housing Action Plan o Establishment of a Northern Food Hub o Food Systems Strategy o Community Engagement Policy

<ul style="list-style-type: none"> ○ Statement of Commitment to Wurundjeri Woi-wurrung People and Aboriginal and Torres Strait Islander Communities ○ Later Years Strategy ○ Library Services Strategy ○ Living and Aging Well Framework 	<ul style="list-style-type: none"> ○ Develop a Child and Youth Engagement Framework ○ Accessible and Inclusive Communications Policy ○ Community Engagement and Public Participation Policy ○ Social Media Policy
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Goal 5 – Partnership approaches – 4 Actions

By 2030, Council collaborates with and influences a range of private, community and public sector partners to drive adaptation and build climate resilience in Merri-bek.

Climate change will create significant challenges for Council; overcoming these will require coordinated action by a range of stakeholders. For instance, reducing and responding to the Urban Heat Island Effect is vital as it increases heat stress and can severely impact more vulnerable communities. Private landowners, developers, property managers and the State Government all have roles to play in increasing canopy cover and reducing heat absorbing surfaces (e.g., concrete, asphalt, brick walls). Climate change also impacts water availability. Combatting this requires close cooperation between different councils, water companies and State Government.

Council has an opportunity to influence climate resilience outcomes through its engagement with stakeholders and partners. Advocacy efforts can be used to improve outcomes for aged people, young children and diverse communities through State-based housing, transport, and health services. Council's own policies and requirements can change the climate responses of the organisations it funds and works with, as well as its suppliers.

OBJECTIVES and desired Outcomes	Lead Unit or Branch	Supporting Unit or Branch	Delivery Year/s	Priority
5.1 TO WORK WITH PARTNERS TO EFFECTIVELY DRIVE CLIMATE ADAPTATION AND RESILIENCE IN THE MERRI-BEK COMMUNITY				
5.1.1 Council works with our partners and the organisations we fund, across community services and the built and natural environment, to: <ul style="list-style-type: none"> ○ Reduce their climate risk, ○ Reduce climate risks to the goods and services they provide, and ○ Build their climate resilience. Related to 1.3.2				
5.1.2 Council actively partners with community organisations and leaders to build Merri-bek's climate resilience.				
5.1.3 Council works with developers, landowners, and residents to drive climate adaptation and resilience on private land. Dependent on 1.1.4				
33. Mitigate climate risks in new development through the planning application process.	Sustainable Built Environment	Planning Enforcement Urban Planning	FY 23/24 to FY 24/25	Tier 1

Continue to review private development approval requests and provide recommendations for sustainable and climate resilient developments based on ESD Planning Policy and leading industry standards and continue to monitor compliance.		Development Engineering		
5.1.4 Council collaborates with regional and State partners, and other stakeholders, to build and leverage systems and processes to manage and respond to climate-related risk at the regional scale efficiently and effectively.				
<p>34. Identify advocacy priorities and implement an advocacy plan for improved policies and funding support for climate resilience</p> <p>Advocate to State and Federal government, and other relevant authorities (e.g. Melbourne Water, Insurance Council of Australia) on the development of further guidance and support to local councils on climate risk management, resilience, and adaptation by contributing to policy consultations and position papers and working with relevant local networks. Continue advocacy on environmentally sustainable development in planning processes at the State level, including through the Council Alliance for a Sustainable Built Environment (CASBE). Continue and look at other opportunities for advocacy especially for energy efficiency for tenants.</p>	Sustainability and Climate Branch	Advocacy Lead	FY 23/24 to FY 24/25	Tier 1
<p>35. Collaborate through networks and stakeholders on climate resilience to share knowledge, pool resources, and identify joint grant opportunities</p> <p>Continue participation in regional and state-level alliances and networks such as the Northern Alliance for Greenhouse Action Adaptation Working Group, Climate Emergency Australia, Victorian Climate Resilient Councils, and other key stakeholders such as Melbourne Water to share knowledge.</p>	Sustainability and Climate Branch		FY 23/24 to FY 24/25	Tier 2

5.2 TO INFLUENCE OTHER ACTORS TO DRIVE WELLBEING, CLIMATE ADAPTATION AND RESILIENCE OUTCOMES FOR THE MERRI-BEK COMMUNITY

5.2.1 Council advocates to and influences other levels of government and service providers to improve the provision of services that support climate resilience of the community, and particularly to vulnerable community members (e.g. services that influence health and transport outcomes for aging people).

5.3 TO WORK WITH PROVIDERS OF GOODS AND SERVICES TO IMPROVE CLIMATE ADAPTATION AND RESILIENCE IN THE MERRI-BEK COMMUNITY

5.3.1 Council collaborates on procurement with regional and State partners, and other stakeholders, to create scale that leverages efficient and effective responses to climate-related risk.

5.3.2 Council's procurement policy drivers our contractors to provide climate-resilient standard offerings

36. Integrate climate risk management into procurement guidelines
Develop guidelines for integrating climate risk in the procurement and contracting process. The guidelines can include for example:
- information and examples of integrating climate risk management and resilience in the development of tender specifications, particularly in climate resilient infrastructure
 - ensuring contractors have appropriate policies and procedures for working in heat such as through their own policies and safe work method statements.

Procurement Unit

FY 24/25

Tier 1

Related strategies and initiatives

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| <ul style="list-style-type: none">○ Northern Alliance for Greenhouse Action (NAGA)○ Climate Emergency Australia○ Cities Power Partnership○ Council Alliance for a Sustainable Built Environment (CASBE)○ Climate Active○ ICLEI Oceania | <ul style="list-style-type: none">○ Better Futures Australia○ Chain of Ponds Collaboration○ Greening the West○ Neighbours United for Climate Action○ Merri Creek Management Committee |
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