

Merri-bek Civic Centre

90 Bell Street
Coburg Victoria 3058
T: (03) 9240 1111

Postal Address

Locked Bag 10
Brunswick Victoria 3056

merri-bek.vic.gov.au



27 June 2024

The Legislative Council Environment and Planning Committee
Inquiry into Climate Resilience
Parliament House, Spring St
EAST MELBOURNE VIC 3002

To whom it may concern,

Merri-bek City Council Submission to the Inquiry into Climate Resilience

Merri-bek City Council welcomes the opportunity to provide a submission to the Inquiry into Climate Resilience.

Merri-bek declared a climate emergency in 2018 that requires urgent action by all levels of government. Merri-bek is proud of its record in developing and delivering innovative climate initiatives that help lead the way for the local government sector across Australia. Council has also committed to collaborate with others to investigate innovations to create a safe climate for all.

The following submission has been prepared by officers and is based on endorsed Council strategy and policy positions.

We also support the submission made by the Council Alliance for a Sustainable Built Environment (CASBE) and the Victorian Greenhouse Alliances.

Alignment with current Merri-bek Council policies

Council is committed to reducing the greenhouse gas emissions that cause climate change while supporting the Merri-bek community in adapting to its now unavoidable impacts.

Our [Zero Carbon Merri-bek 2040 Framework](#) sets out Council's vision for a zero carbon future by 2040. Given that the impacts of climate change are escalating rapidly, Council, in 2021, adopted more ambitious targets to achieve 75% emissions reduction by 2030 (against 2011/12 baseline), net zero by 2035 and drawdown ('negative emissions') by 2040. For Council (corporate/operational) emissions we have a highly ambitious target range of between 80 – 100% reduction by 2030 (precluding offsets, against 2011/12 baseline).

Merri-bek's [Climate Risk Strategy](#) describes how Council will proactively plan for and respond to the inevitable impacts of climate change. Our Vision is that, by 2030:

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

Merri-bek's [Foundational Action Plan 2023-2025](#) identifies 36 actions that are foundational to:

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

Merri-bek has a range of endorsed strategies and Action Plans to protect the natural environment including:

- The [Integrated Water Management Strategy](#) and [Action Plan](#) outlines Council's vision for taking care of our waterways and precious water supplies.
- The [Nature Plan](#) outlines Council's vision for enhancing biodiversity and celebrating nature in our City.

Our response to the Inquiry includes the following recommendations:

- **Support Adaptation Funding:** Provide financial assistance, grants, and incentives to support local governments, communities, and businesses in implementing climate adaptation measures, including infrastructure upgrades, disaster risk reduction and preparedness, and ecosystem restoration.
- **Address Equity and Social Justice:** Ensure that climate resilience policies and initiatives prioritise equity, social justice, and the needs of vulnerable populations, including First Nations communities, low-income households, and regional areas.
- **Ensure multi-level Governance:** Develop clarity on the roles, responsibilities, and accountability of each level of government and across agencies, not only in planning adaptation, but in funding, implementing, and reporting on action plans and their outcomes.
- **Enhance Regulatory Frameworks:** Review and update regulatory frameworks to integrate climate resilience considerations into planning, development approvals, and infrastructure standards, ensuring that new investments are resilient to future climate risks.
- **Mandate tackling climate change in planning systems:** Explicitly address climate change at all levels of the planning process to create safe climate and resilient communities.
- **Promote Community-based Adaptation Approaches:** Foster community engagement and capacity-building initiatives to raise awareness of climate risks, empower local communities to take action, and facilitate bottom-up approaches to adaptation planning and implementation.
- **Strengthen Collaboration:** Engage in collaboration and knowledge-sharing initiatives to exchange best practices, build capacity, and address transboundary climate risks effectively, especially across the three levels of government.
- **Invest in Climate Data and Research:** Increase funding for climate data collection, research, and modelling to improve understanding of climate hazards, vulnerabilities, and impacts, and support evidence-based decision-making.
- **Support Innovation and Technology:** Invest in research, innovation, and technology development to develop climate-resilient solutions, such as advanced early warning systems, sustainable infrastructure designs, and nature-based adaptation strategies.

Inquiry Focus Areas

(a) the main risks facing Victoria's built environment and infrastructure from climate change and the impact these will have on the people of Victoria;

Risk to Community

Based on analysis of the Victorian Climate Projections 2019 (VCP19)¹ dataset, the Urban Heat Vulnerability Index 2018² and the Community Emergency Risk Assessment (CERA)³ for Merri-bek, the greatest risks to the Merri-bek community from climate change are heatwaves, storms, and flooding events. Secondary impacts include resulting power outages and disruption. Among weather and climate events, extreme heat has the greatest impact on the loss of lives in Victoria. With the average Australian home performing at 1.7 stars⁴, there are enormous risks to residents of poor-quality housing during the extreme heat events we are currently experiencing, and which will increase in frequency and intensity. Many households are also experiencing significant cost of living pressures, which is a barrier to households undertaking energy upgrades of their homes.

A vision of our Climate Risk Strategy is that by 2030⁵, Merri-bek is a climate-ready and resilient community with no one left behind. Climate change does not affect everyone equally and climate change impacts are disproportionately felt by groups like First Nations people, older people, refugees, and migrants. We know from our community engagement that in Merri-bek, 26% of residents surveyed struggled with heat in their homes, with half from multicultural backgrounds. Conversely, only 25% of those with comfortable homes were from multicultural backgrounds⁶. There is a need to ensure that any actions taken to reduce the risk of climate change in our community addresses the existing disadvantages and does not widen existing inequalities.

Extreme heat also has impacts on mental health and wellbeing, maternal and infant health, family violence, and social isolation. Addressing these issues requires place-based, systems approaches and coordination among different organisations, including state government agencies, health service providers, public health units, and local councils.

Risk to Council infrastructure and service provision

Improving the resilience of Council infrastructure is objective 2.1 in our Climate Risk Strategy. Merri-bek City Council manages assets worth over \$2.4 billion that are used to provide various services and facilities to the community.⁷ The cost of retrofitting or rebuilding infrastructure after damage from extreme events is likely to become unsustainable. The expected service levels and provision of key infrastructure is also changing. For example, the community expectation on libraries, is that they also provide refuge from extreme heat, in addition to their role in providing education services. Drainage infrastructure will need to cope with higher and faster volumes of water.

¹ [VCP19 Publications \(climatechangeinaustralia.gov.au\)](https://climatechangeinaustralia.gov.au/publications/vcp19)

² [Cooling and greening Melbourne map \(planning.vic.gov.au\)](https://planning.vic.gov.au/cooling-and-greening-melbourne-map)

³ [Community Emergency Risk Assessment \(CERA\) - www - VICSES](https://www.vicses.com.au/community-emergency-risk-assessment-cera)

⁴ COAG Energy Council (2019) Report for Achieving Low Energy Existing Homes.

⁵ [Merri-bek Climate Risk Strategy 2022-2030](#).

⁶ [Climate Risk Strategy and Action Plan | Conversations Merri-bek](#).

⁷ [Merri-bek City Council. Ten-year Asset Plan 2022- 2032](#).

Our recent building vulnerability assessments have also brought to light that we will need to upgrade ageing buildings to cope with extreme heat and flash flooding, to maintain ⁸Assets such as roads and drainage are also expected to be impacted by climate risks.

Access to data

There are no centralised sources of data or established common indicators on the health impacts of climate change, such as on heat-related illnesses, mental health, family violence, social isolation, maternal and infant health. In Victoria, deaths due to heatwaves are only recorded for significant events, such as the 2009 and 2014 heatwaves.⁹ With limited understanding of health impacts, it will be difficult to assess whether actions are working. State agencies, working with the public health units, should coordinate monitoring and surveillance systems on the impacts of extreme heat, as they do with communicable and vector-borne diseases. This will help local government support a collective impact approach of working with community organisations and through the services that Councils provide.

A study carried out by NC Economics estimated that average annual damages to infrastructure in Merri-bek City Council are expected to double by 2050 and triple by 2100.¹⁰ Insurance costs will also continue to increase as climate change is being factored into premiums and insurers are limiting their coverage of significant risks. In many cases insurance for infrastructure and properties may be unavailable entirely, as risks to properties are deemed too high.¹¹

Other infrastructure such as transportation, energy, and telecommunications will need to withstand extreme events to continue to enable services, including emergency and essential services that are provided by local councils. Storms in February 2024 caused massive power outages in Victoria and impacted on transportation and telecommunications. Timely and effective responses to emergencies rely on resilient infrastructure.

Recommendation:

1. Establish common indicator frameworks and support and fund data collection on health impacts of climate change.

(b) how the Victorian Government is preparing for and mitigating the impacts of climate change on our built environment and infrastructure;

There should be clarity on the roles, responsibilities, and accountability of each level of government and across agencies, not only in planning adaptation, but in funding, implementing, and reporting on action plans and their outcomes. As the risks and opportunities of climate change become increasingly clear, it is imperative that all levels of government work well together to accelerate the transition to net zero and to strengthen community resilience.

To meet this challenge, the current fragmented approach to policy, funding and resourcing must be addressed. The *Many Hands Makes Light Work* report identifies that a new approach to climate governance is required to empower all spheres of government to fulfil their climate ambitions by

⁸ A full copy of the report Climate Vulnerability Assessment 2023 conducted by Merri-bek City Council with FG Advisory can be provided upon request. The summary recommendations are included as Appendix 1.

⁹ [Research and reports - extreme heat and heatwaves \(health.vic.gov.au\)](https://www.health.vic.gov.au/research-reports-extreme-heat-and-heatwaves)

¹⁰ Adaptive Community Assets. 2023. NCEconomics.

¹¹ Uninsurable Nation: Australia's most climate-vulnerable places. 2022. Climate Council.

promoting effective coordination between and across all levels of government.¹² This 'multilevel governance' approach is intended to turbocharge climate action and give those on the frontlines a seat at the decision-making table. It is also designed to stimulate collaboration, engagement and communication between government portfolios and sectors of the economy.

It would be important to articulate how the Victorian Government takes a leading role in establishing clear policies, and in funding actions, especially when adaptation actions require system-level responses and support for the most vulnerable. In Victoria, adaptation action plans across seven systems and regions were developed but appear to be largely unfunded.

Recommendations:

2. Work with the federal and local governments to re-set roles and responsibilities through establishing a multilevel governance approach to climate adaptation.
3. Commit to funding of Victorian Built Environment and other Systems and Regional Adaptation Plans.

(c) the barriers facing Victoria in upgrading infrastructure to become more resilient to the impacts of climate change, including barriers in rebuilding or retrofitting infrastructure, including but not limited to, issues relating to insurance and barriers faced by local government;

Infrastructure Victoria's *Weathering the storm: adapting Victoria's infrastructure to climate change* Merri-bek City Council supports the recommendations in Infrastructure Victoria's *Weathering the storm: adapting Victoria's infrastructure*¹³ to climate change report to better embed adaptation action across departments and agencies. The recommendations are:

1. Boost priority and oversight for infrastructure adaptation

- Make public infrastructure resilience a priority in Victoria's climate change strategy.
- Develop an adaptation action plan for Victoria's energy system.
- Include all infrastructure types in future adaptation action plans.
- Specify the responsible agency for each adaptation action.
- Regularly publish a progress and evaluation report on adaptation actions.

2. Coordinate and standardise climate projections

- Establish an agreed set of climate projections for use in government infrastructure planning and management, especially projections of extreme weather events.
- Keep improving local level data that infrastructure managers can use for site-specific analysis.
- Deliver training and ongoing support for infrastructure managers to apply the data to climate risk assessments.

3. Use asset management systems to improve resilience

- Release climate change guidance on assessing climate vulnerability and risk, designing for resilience, and adopting preventative maintenance.
- Support agencies to develop the processes, tools, and expertise to embed climate considerations in asset management practice.

4. Integrate climate risk into government risk management

¹² [Melbourne Centre for Cities, Many Hands Make Light Work](#), final report, July 2023.

¹³ [Infrastructure Victoria, Weathering the storm: adapting Victoria's infrastructure to climate change](#), April 2024.

- Develop detailed guidance to accompany the Victorian Government risk management framework on how to assess climate-related risks to infrastructure and integrate them into decision-making.

5. Align climate and financial risks to infrastructure

- Include climate adaptation in the government's long-term financial management objectives for infrastructure.
- Require departments and agencies with infrastructure holdings to prepare climate-related financial risk disclosures.

6. Update business case and investment guidance

- Update existing business case guidelines, technical guidelines, and templates to include the risks and impacts of climate change.

7. Build confidence that good adaptation solutions will receive funding

- Attach funding to the 2026 updates of the system-wide adaptation action plans, to encourage government agencies to evaluate and prioritise assets for adaptation and incorporate adaptation into business cases.

Lack of support for energy upgrades by vulnerable households

Merri-bek City Council implemented the [Cooling Communities](#) project with funding support from the Victorian Government. We worked with social housing providers Aboriginal Housing Victoria and Housing Choices to monitor temperatures and install upgrades in 10 homes in Merri-bek. Project participants included people from First Nations backgrounds, people experiencing family violence, and newly arrived migrants. One of the lessons learned from the program include the importance of building trust over time.

As part of the project, an officer was recruited to liaise, and project manage the works in the homes of the participants. Having a dedicated resource to engage with project participants helped to build trust and confidence in the program, as it involved works in people's homes. It was also important that the project included works such as planting trees, insulation, and installing solar that directly benefitted participants and not just temperature measurements and assessments.

Based on these learnings, since late 2020, Merri-bek has provided a “one-stop-shop” concierge service for low-income households to either install a solar PV system or improve the thermal performance of their home with insulation and/or draught sealing measures ([Financial support for residents on a low income - Zero Carbon Merri-bek](#)) The success of the program comes from careful, yet deliberate program design which includes:

- A personalised concierge service provided by Council staff to support the household throughout the various program stages, including eligibility, suitability of program offerings, right through to completion.
- A foundation of trust- that's established by Council with the household from the outset and is based on not only using experienced, vetted service providers, but Council's commitment to serving its community.
- Targeted engagement and promotional activities- including utilising Merri-bek's innovative “Community Connectors” network, translation and interpretative services, to maximise program awareness and uptake.
- Dedicated assistance- in navigating the sometimes-complex process of applying for State Government rebates; and

- Financial subsidies- provided by Council (up to \$3,000 for solar or \$2,000 for thermal) to address the up-front cost challenges.

Merri-bek is concerned that there is limited state programs and funding currently reaching those who need the most support and are at most risk. A multi-level governance approach is needed to implement energy upgrades programs that leverages the respective capabilities and resources of each sphere of government. An approach that addresses the current market failure and key barriers – upfront costs, trusted suppliers, engagement for 'hard to reach' communities, split incentives and ownership types.

We also support the recommendations in the Australian Council of Social Services (ACOSS) report *Funding and Financing Energy Performance and Climate-resilient Retrofits for Low-income Housing*.¹⁴ Funding is needed to support energy performance measures in public, community, and social, First Nations housing as well as private rentals and low-income owner occupier homes.

Barriers for renters

Merri-bek welcomes the increase in the energy efficiency standards proposed in the [Victorian Governments Minimum Standards for Rental Properties and Rooming Houses](#) regulations and associated Regulatory Impact Statement.

Merri-bek has a high proportion of renters with 34.7% of households living in private rentals. Rental housing tends to be of poorer quality than other dwellings, particularly in terms of energy efficiency.¹⁵ Renters face significant disadvantage in improving the energy performance of their homes and are at higher risk to the impact of climate change.

Unpublished data set as part of a University of Melbourne Master of Geography research thesis on *Extreme Heat and Renters in Merri-Bek* reveals:

- The top impacts that respondents felt in the extreme heat were (in order) 1) feeling too hot, 2) not sleeping, 3) feeling unwell, 4) worrying about others in the home, and 5) worrying about pets.
- The majority (62%) of respondents had access to some form of air conditioning or evaporative cooling.
- The majority (65%) of people with some form of air conditioning reported barriers in using it. The most common barriers were (in order) 1) it being too expensive to run, 2) it not working effectively, 3) it being broken.
- A little over a third (37%) of respondents had made a request of their landlord related to extreme heat. The most common requests were to 1) install and 2) repair air conditioning.
- Of the people who made requests of their landlord related to the heat, the majority, 55%, had it rejected, 20% had it accepted, for 18% it was still being considered, and the remainder weren't sure of the outcome.
- The top action that respondents supported from the government was requiring landlords to provide air conditioning or other cooling methods - 79% of respondents.
- 69% of respondents thought there should be government-funded programs to retrofit rentals with air conditioning and other cooling methods, and 54% thought there should be subsidies or other programs to reduce the cost of electricity.

¹⁴ ACOSS, [Funding and Financing Energy Performance and Climate-resilient Retrofits for Low-income Housing](#), 2024

¹⁵ AHURI-Final-Report-338-[Warm, cool and energy affordable housing policy solutions for low income renters](#), 2020

The proposed minimum standards are a good start for comprehensive minimum standards for energy efficiency in Victorian rental properties. The current suite of standards should be passed and introduced now, noting some improvements will likely be required in the future. However, to ensure minimum standards regulation is effective there needs to be proper enforcement of compliance. Compliance cannot be a responsibility of renters as many are hesitant to assert their rights for fear of eviction or rental increase, especially during an affordable rental housing crisis.

Supporting the Resilience of Council assets

A resilient built environment and infrastructure system relies upon a network of individual resilient assets, requiring place- and context-dependent approaches to individual buildings or building typologies as well as asset classes. A major barrier to strengthening adaptation in infrastructure is the age of existing infrastructure and the costs for upgrades. Merri-bek and other councils have significant property portfolios comprising aging assets, and often assets which have reached or surpassed their expected end of life.

There should be funding to allow local governments and state agencies to proactively upgrade and improve the resilience of infrastructure, rather than just after a disaster. Where assets are impacted by disasters, insurance payouts should account for “building back better” instead of like-for-like replacements that are untenable. Betterment funds, such as those in Queensland and New South Wales, should also be made available in Victoria. Councils should also be supported with resources to effectively assess and determine appropriate adaptation actions and the cost-effectiveness of such actions, to understand the extent of refits or redevelopments required and plan appropriately in budgets and asset planning.

Merri-bek conducted a Building Vulnerability Assessment in 2023 to better understand what would be needed to improve the resilience of a small sample of libraries, aquatic centres, maternal and child health centres, and municipal offices. The summary of recommendations is included as Appendix 1. While the needed works were not fully costed, the work gave an indication of the magnitude of investments required, including major upgrades, geotechnical investigations, site regrading, upgrades of heating, ventilation, and air conditioning (HVAC) systems and replacement of building components.

As Merri-bek is currently investigating options to deliver similar built solutions across its building portfolio we need guidance and support in identifying adaptation actions that can be rolled out at scale, while balancing that with a place-based lens on our end to ensure actions are effective.

Recommendations:

4. Adopt and finance the implementation of the recommendations in Infrastructure Victoria's Weathering the storm: adapting Victoria's infrastructure to climate change.
5. Support and fund local actions on energy upgrades programs and subsidies that are proven to work and that address the needs of the most vulnerable in the community, including consideration of local Councils as key delivery partners.
6. Develop and support a multi-level governance approach that addresses market failures and key barriers for uptake of energy upgrades.
7. Introduce the increase in the energy efficiency standards proposed in the Victorian Governments Minimum Standards for Rental Properties and Rooming Houses regulations.
8. Introduce mandatory disclosure of energy performance for all buildings when they are sold and leased.

9. Fund energy performance measures in public, community, and social, First Nations housing as well as private rentals and low-income owner occupier homes.

(d) the adequacy of the current Victorian planning system as it relates to its adaptation to, preparation for, and mitigation of climate change impacts;

Planning decisions being made today will be locked in for years to come - more than half of Australia's 2050 building stock will be constructed during the next 30 years. We need to increase the resilience of the built environment and reduce carbon emissions – and to achieve this through rapid transformational, rather than incremental, change.

There is a disconnect between high level policy positions on tackling climate change, and day-to-day planning decisions. Victoria has a zero emissions target, and many councils have more ambitious targets, but this is not reflected in planning decisions. Despite work by councils to make the planning system a better tool for change, the system is not yet doing enough to help restore a safe climate and create resilient communities.

To enable the delivery of a safe climate and resilient communities the Government must mandate tackling climate change as a priority at all levels of the planning system.

Climate Change & Planning in Victoria

Merri-bek City Council commend the State Government for the Climate Change and Energy Legislation Amendment (Renewable Energy and Storage Targets) Bill 2023 which received Royal Assent on 26 March 2024.

The bill outlines proposed amendments to the Planning and Environment Act 1987, which includes:

- Definitions: In section 3(1) of the Planning and Environment Act 1987 insert the following definition— "emissions reductions target means— (a) an interim emissions reduction target within the meaning of the Climate Action Act 2017; and (b) a long-term emissions reduction target within the meaning of the Climate Action Act 2017;"
- Objectives: After section 4(2)(d) of the Planning and Environment Act 1987 insert— "(da) to provide for explicit consideration of the policies and obligations of the State relating to climate change, including but not limited to greenhouse gas emissions reduction targets and the need to increase resilience to climate change, when decisions are made about the use and development of land;"
- Changes to Climate Change Act and Renewable Energy Act.

Merri-bek notes that this responds to the following recommendation from the *Climate Change & Planning in Victoria: Ensuring Victoria's planning system effectively tackles climate change report*:¹⁶

- Initiative 2: Seek an amendment to the Planning & Environment Act 1987 to provide clearer direction on the consideration of climate change in assessment and decision-making

¹⁶ VGA & CASBE, [Climate Change & Planning in Victoria: Ensuring Victoria's planning system effectively tackles climate change report](#), 2021.

We encourage the Victorian Government to implement all the findings and recommendations in the *Climate Change & Planning in Victoria: Ensuring Victoria's planning system effectively tackles climate change report*. A summary of recommendations is included in Appendix 2.

Elevating ESD Targets Planning Policy Amendment

An action of the Merri-bek City Council's Zero Carbon Action Plan is Achieving Zero Carbon within the Planning Scheme. Through Merri-bek's leadership, in July 2022, 24 Victorian councils (representing 50% of the Victorian population) have collaborated to lodge a joint planning scheme amendment that elevates sustainability requirements for new buildings. The councils are all members of the Council Alliance for a Sustainable Built Environment (CASBE) and the project supported by the Municipal Association of Victoria (MAV).

The [Elevating ESD Targets Planning Policy Amendment](#) seeks to build on the current Environmentally Sustainable Development (ESD) requirements for new developments and in doing so, better protect the natural environment, reduce resource and energy consumption, and support the health and wellbeing of future occupants.¹⁷ The amendments include detailed, measurable targets that will deliver meaningful outcomes in practice.

The goal of the project is to better protect the natural environment, reduce resource and energy consumption, and support the health and wellbeing of future occupants.

- Under the proposed changes, new developments would:
- Produce net zero carbon emissions.
- Reduce household bills by making buildings more energy efficient.
- Provide a healthier and more comfortable environment for building occupants.
- Better manage water quality, use and collection.
- Protect and enhance greening and biodiversity.
- Be more resilient to changing climate impacts.

The Elevating ESD Targets Amendment outlines design strategies to address the following key environmental issues:

- Operation Energy
- Embodied carbon
- Sustainable Transport
- Green Infrastructure
- Integrated Water Management
- Climate Resilience
- Indoor Environment Quality

Recommendations:

10. Implement all the findings and recommendations in the *Climate Change & Planning in Victoria: Ensuring Victoria's planning system effectively tackles climate change report*.
11. Authorise the Elevating ESD Targets Amendment as soon as possible to enable councils to lead in transitioning to a climate resilient built environment.

¹⁷ [Elevating ESD Targets - The Council Alliance for a Sustainable Built Environment \(CASBE\)](#)

12. Introduce mandatory minimum climate change standards into the planning scheme.
 13. Adopt science-based targets for high level policy and align the planning system to the most up to date climate science.

(e) what more could be done to better prepare Victoria's built environment and infrastructure, and therefore the community, for future climate disaster events; and

Increasing guidance and funding for local government on drainage system infrastructure and water sensitive urban design assets

Merri-bek is a city bounded by water and has the goal to transition to a water sensitive city, as set out in our Integrated Water Management Strategy 2040. Water is an important resource and has great cultural significance to First Nations peoples.^{18 19} With limited local government funding and resources, guidance and funding are needed to meet water-sensitive city targets and encourage water authorities to upgrade the main drains to help manage flooding.

We welcome Melbourne Water's flood modelling program that considers climate change with a planning horizon to the year 2100. This work is crucial in understanding how water will move through our city in the future and how we can best manage risks. We look forward to working with Melbourne Water in drafting the relevant Planning Scheme Amendment, community engagement, and supporting local flood emergency planning together with other partners.

Moreover, as Metropolitan Melbourne's Floodplain Management Authority, Melbourne Water, should increase funding, resourcing and have a long-term action plan to lead floodplain management planning and investments across all of metro Melbourne. If local councils are to assess planning permit applications, in their role as a local drainage authority, tailored guidelines may be required for each local catchment. Therefore, Melbourne Water needs to take an active role in capability-building across the local government sector and leading the preparation of guidelines and information, , for consistent decision-making within its Port Phillip and Western Port areas of responsibility.

Undergrounding of power lines²⁰

Vegetation clearance requirements around powerlines also impact urban forest outcomes, that are critical in helping to regulate extreme heat. This is compounded by old electrical infrastructure (uninsulated low voltage service line) in Merri-bek needing greater clearance. A review of the Victorian Electric Line Clearance Regulations (2020), could force distribution businesses to replace old electrical infrastructure and reduce electric line clearance requirements in Victoria, allowing councils to achieve better urban forest tree canopy outcomes.

¹⁸ Dja Dja Wurrung Climate Change Strategy 2023 – 2023.

¹⁹ Wurundjeri Water Policy. Nhanbu narrun ba ngargunin twarn Birrarung – Ancient Spirit and Lore of the Yarra.

²⁰ Merri-bek City Council [2022 Advocacy Priorities](#)

Recommendations:

14. Fund upgrades of drainage networks and increased number of water sensitive urban design assets.
15. Provide guidance and capability building across local governments on consistent decision making related to planning permits and floodplain management.
16. Develop a program and funding to underground power lines to enable increased tree canopy coverage in metropolitan areas.

(f) whether further inquiries or investigation may be needed into other aspects of climate change adaptation and climate disaster preparedness in Victoria, noting that climate change will have far-reaching impacts on all aspects of Victorian life, including but not limited to biodiversity, human health, primary production, industry, emergency services and more, and that while these areas may overlap with the matters covered in this inquiry, they may also warrant further investigation in their own inquiries.

Further investigations and investment are needed to ensure that any adaptation and climate resilience poles and strategies are not just reliant on infrastructure and capital works. There is also a need to look at systems integration, and not to have disjointed processes and recommendations for different areas like the built environment, biodiversity, human health, emergency services, and others.

We also need to engage our communities in the planning and preparations for climate disasters. As noted in VCROSS's *Communities at the centre: Insights from the Multicultural Resilience Project* the best solutions are those that come from within communities.²¹ To invest in preparedness, long-term recovery, and resilience with multicultural communities we need to:

- Build trusted relationships
- Co-design communications
- Enable community led, place-based support
- Ensure sustainability

Funding community-based and place-based adaptation and resilience projects

The impacts of climate change are experienced by the community at the local level. Funding for community-based adaptation through small and mediums sized grants programs for local community groups can enable and empower local action. Merri-bek is home to many active community groups that support initiatives like urban forestry and indigenous planting, community gardening and local food systems, protection of waterways, and other forms of climate action. Supporting local adaptation have additional benefits of strengthening social cohesion, supporting mental health by providing avenues for action, building skills and capability, and long-term sustainability of initiatives as supported and owned by the community.

Community-based programs also offer the opportunity for reach and scale that other centralised adaptation initiatives may not be able to achieve. Climate resilience is a shared responsibility among government, private actors, and the community. Funding programs that design for adaptation outcomes and accompanying grant opportunities for community-based adaptation would support and enable the community to take part in climate action.

²¹ https://vcross-org-au.webpkgcache.com/doc/-/s/vcross.org.au/wp-content/uploads/2023/12/MRP-Insights-Nov23_P5.pdf

Supporting preparedness, risk reduction, and community resilience education

Community resilience and education is paramount to strengthen adaptation undertaken in the built environment and infrastructure. The community of Merri-bek is diverse, requiring a multidisciplinary approach to educate, inform, and support communities to have practical approaches to adaptation. This engagement can take time and resources and must be designed to meet the needs of different demographics. From an emergency management perspective, policies and planning need to be communicated with the community, businesses, and local organisations in an easily understood manner. Information requires to be clear in how policy and planning can be linked into everyday actions undertaken by the community to build their resilience and adaptation.

To support community resilience, Merri-bek partnered with Deakin University researchers, creatives and the community to develop [The Adaptation Game](#) (TAG). TAG is a replicable, transferable and inclusive story-telling experience that scales climate change and disaster preparedness down from overwhelming global fears to local risks. TAG brings climate science and story worlds together in a way that provides a fictional experience of 'living through' three natural disasters in their local area. The game humanises the concept of disaster planning and climate change into players' lives in a meaningful, practical, actionable way. Beyond the game, facilitation by local people championed by the Merri-bek Council enables players to access support and take action through connecting them to local community groups and programs.

This engagement has demonstrably helped players to feel less fearful, and instead feel empowered and knowledgeable enough to take action in their own lives. Players have since joined community climate groups, started a neighbourhood WhatsApp group, and generally reported a better understanding of personal and communal resilience. TAG, which has since been localised with nine other Victorian councils, with interest spreading across Australia and internationally. A [short documentary video](#) capturing the experiences of participants who played the first game shows the impact of playing.

"I can feel empowered on a local level to help protect my community. Before I just felt overwhelmed by the inadequate measures being taken on a global scale." - Anonymous TAG participant.

Majority of local councils' resources for emergency management are used for legislated functions and activities focused on response and recovery. Providing funding for preparedness and risk reduction work, sharing across organisations working in this space, and facilitated collaboration can enable and support preparedness actions

Recommendations:

17. Provide funding for community preparedness and engagement activities designed to meet the needs of different demographics.
18. Support behaviour change models in encouraging community-based emergency preparedness and adaptation.

Conclusion

We congratulate the Victorian Parliament in taking action for an equitable, resilient and zero carbon future. We look forward to working with the Victorian Government in the implementation of recommendations that come from the inquiry.

Should you require further information please contact Victoria Hart, Acting Director Place and Environment vhart@merri-bek.vic.gov.au

Your sincerely

A handwritten signature in black ink, appearing to read 'Victoria Hart', with a stylized, cursive script.

Victoria Hart

Acting Director Place and Environment
Merri-bek City Council

Appendix 1: Summary and recommendations of the project Merri-bek City Council Climate Vulnerability Assessment

Merri-bek City Council Climate Vulnerability Assessment

Merri-bek City Council is committed to ensuring that council facilities, infrastructure and communities are appropriately prepared to respond to and recover from the impacts of climate change.

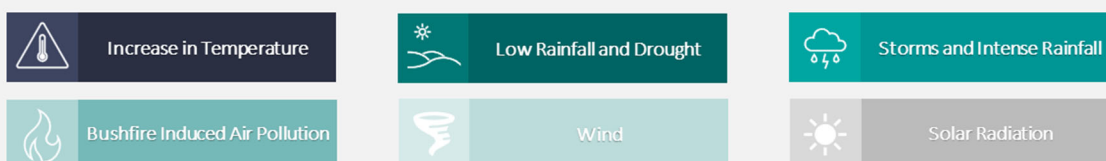
The *Merri-bek City Council Climate Vulnerability Assessment* has been developed to determine the climate vulnerability of several key council facilities. These facilities have been nominated to represent the diversity of council services, community demographics and building typologies across the Merri-bek portfolio.

Based on the assessment outcomes, a list of *climate adaptation strategies* have been developed. Implementation of these measures will serve to reduce council vulnerability, improve facility resiliency and support Merri-bek City Council withstand and recover from extreme climate events.

Future Climate Hazards

The climate vulnerability assessments and subsequent climate adaptation strategies are based on the *RCP8.5* scenario representing the highest emissions scenario based on current global emissions trajectories.

The following climate hazard categories were assessed using CSIRO/DEECA's *Victorian Climate Projections 2019* and existing climate data provided by Merri-bek City Council.



2030 Council Vulnerability Summary

The vulnerability of the nominated council facilities to 2030 climate hazards is shown below. Further detailed per-facility evaluations have been conducted for both 2030 and 2050 timelines.



Climate Adaptation and Resiliency

Climate Resiliency Principles

The climate adaptation strategies have been developed to enhance Merri-bek City Council *climate resiliency*, ensuring that council facilities are appropriately prepared to respond and recover from future climate events. Critically, these strategies differ from typical energy and emissions reduction initiatives as they focus on *climate change adaptation* rather than *climate change mitigation*.

Climate Adaptation Recommendations

To address the broad range of building typologies, age, condition and community usage patterns the climate adaptation strategies have been separated into three categories. Provided below is a prioritised list of recommendations for each category. Further detail on each adaptation strategy including a cost-benefit analysis is included in Section 4.

General Portfolio Upgrades

1. **Thermal Envelope Improvements** – Improving the quality of insulation installed in the building envelope, including walls, roof and floor spaces. Thermal envelope upgrades also includes incorporation of thermal mass elements such as concrete or masonry, thermal breaks in the building structure and use of light-coloured roofing.
2. **Passive Design Upgrades** – Incorporating passive design principles to reduce reliance on mechanical heating and cooling systems. This may include natural ventilation, automated shading systems that adjust based on solar angles and natural daylight optimisation to maximise solar penetration and reduce artificial lighting requirements.
3. **Thermal Zoning Upgrades** – Dividing buildings into distinct thermal zones based on occupancy patterns, internal heat loads, and desired temperature ranges, allowing for more precise heating and cooling control. Installing additional insulation and partitioning between thermal zones to minimise heat transfer and maintain temperature differentials.
4. **Airtightness Upgrades** – Installing well-fitted and properly sealed doors and windows significantly reduces the infiltration of dust, smoke and pollutants. By using weatherstripping, sealants, and gaskets, it is possible to create a tight seal, limiting the entry of particulates and pollutants into the building, improving occupant comfort and wellbeing.
5. **Battery Storage** – Implementing battery storage allows surplus electricity produced by onsite solar PV or from the grid to be stored for future use. The stored electrical energy in the batteries can be discharged during grid blackout events to keep critical systems operational for a short period of time.
6. **Storm Water Upgrades** – Installing sustainable drainage systems, such as permeable pavements and rain gardens to capture and treat stormwater on-site, mitigating the impacts of storms and intense rainfall and reducing risk of flooding. Upgrades may include regrading of external areas to limit pooling and flood intrusion into internal areas. Flood-resistant materials, such as barriers, flood vents and elevated electrical systems can also be used to limit damage from local flooding and water ingress.
7. **Rainwater Storage** – Implementing rainwater storage tanks to collect stormwater runoff for reuse reduces demand on drinking water and mains supply water usage. Furthermore, as rainwater storage redirect stormwater that would otherwise enter drainage systems it can minimise the risk of flooding and lower the impact on facility drainage systems.
8. **Outdoor Solar Lighting** – Outdoor solar lighting are reliable, compliant, and cost-effective lighting solutions which provide an alternative to traditional external and perimeter lighting solutions. As they are standalone systems, outdoor solar lights can continue to operate during grid blackout events, providing a highly reliable source of illumination.
9. **LED Lighting and Controls** – Replacing existing fluorescent and halogen lighting with Light Emitting Diodes (LEDs) reduces energy consumption, providing the ability to operate for longer periods on facility backup power sources. Furthermore, due to their increased efficiencies, LED's produce less heat, reducing plant heating loads, facility temperatures and occupant thermal stress during extreme heat waves.
10. **Tap Aerators** – Installing tap aerators is a simple, low cost and complexity method of reducing facility water consumption, which may be of importance during drought and future potable water restrictions.

Climate Adaptation and Resiliency

Climate Ready Planning

1. **Climate Emergency Response Plans** – It is recommended Merri-bek City Council develop comprehensive Climate Emergency Response (CER) plans for use during future climate events. Climate emergency response plans should provide facility staff sufficient guidance and direction in the event of an emergency, and outline actions to be undertaken before, during, and after climate events. Implementation of an effective CER plan will serve to improve facility preparedness, enhance community safety, welfare and aid in recovery efforts.
2. **Climate Ready Asset Management** – Merri-bek City Council should develop a proactive asset management plan to embed climate resiliency into all future asset management and maintenance works. Strategic coordination of asset management, with appropriate consideration of the future climate will minimise council maintenance and capital works expenditure as well as improving facility and community wellbeing.
3. **Climate Ready Procurement and Design Guidelines** – Developing Climate Ready Procurement and Design Guidelines is essential for improving the resilience of council buildings. These guidelines will ensure that climate considerations are integrated into the procurement process and design phase of construction projects. By incorporating climate resilience criteria into procurement decisions and design standards, councils can prioritise sustainable materials, energy-efficient systems, and resilient infrastructure, ultimately creating buildings that are better equipped to withstand climate-related challenges and contribute to a more sustainable future.
4. **Staff and Community Education and Awareness Programs** – Engaging the local community through education and awareness programs plays a vital role in improving building resilience against climate change. By educating staff and community members about the importance of sustainable practices, such as energy conservation and waste reduction, Merri-bek City Council can foster a collective effort towards building a more resilient and climate-friendly environment. This empowers occupants to make informed decisions and actively participate in resilience efforts.

Next Steps

Based on the outcomes of the assessment, the following next steps are recommended:

Portfolio Upgrades Pilot Project

It is recommended that Merri-bek City Council select one building as a test case for further investigation and implementation of the proposed portfolio upgrades. Use of a pilot project allows for a comprehensive evaluation of the adaptation strategy cost-effectiveness, technical feasibility and community impacts prior to widespread rollout. The Brunswick East Maternal & Child Health Centre presents a good candidate for a pilot project as it provides a fair representation of general facility condition, size and typical issues.

Increase Assessment Sample Size

The Climate Vulnerability Assessment was conducted on a small subset of the Merri-bek City Council portfolio. To assist Merri-bek City Council make informed decisions on the prioritisation of climate resiliency upgrades it is recommended to increase the sample size prior to selecting buildings for further development. Enhanced facility data across a wider range of buildings will enable Merri-bek City Council to make informed decisions on high priority buildings, factoring in facility climate vulnerability, condition and community needs.

Climate Resiliency Masterplanning

Given the size of Merri-bek's asset portfolio and available capital, it is recommended to develop a practicable system to prioritise climate resiliency upgrade works. The prioritisation system should consider overall facility vulnerability and may include several additional key elements such as remaining asset life, facility condition, community importance, utilisation, and alignment of the proposed works with broader Merri-bek goals and strategies. Developing a Masterplan for future works that accounts for these factors, resources and opportunities supports a strategic approach to the selection of building upgrades. This Masterplan could be a standalone program of future planned works or integrated within council's broader strategic master planning aspirations.

Appendix 2: Summary of recommendations of the *Climate Change & Planning in Victoria: Ensuring Victoria's planning system effectively tackles climate change* report.

'Ensuring Victoria's planning system effectively tackles climate change' is a project led by the Climate Change and Planning Advocacy Group. This group was established to explore, consider, develop and advocate for solutions to address climate change. It also seeks to support Victoria's commitment to net zero greenhouse gas emissions through the authorising environment of the planning, and associated building, system. The group is a collaboration between the following organisations:

- Council Alliance for Sustainable Built Environment (CASBE)
- Central Victorian Greenhouse Alliance (CVGA)
- Eastern Alliance for Greenhouse Action (EAGA)
- Goulburn Murray Climate Alliance (GMCA)
- Northern Alliance for Greenhouse Action (NAGA)
- South East Councils Climate Change Alliance (SECCA)
- Western Alliance for Greenhouse Action (WAGA)

PRIORITY RECOMMENDATIONS

These represent the Initiatives which achieve the highest overarching ranking:

- Initiative 1: Seek an amendment to Schedule One of the Climate Change Act 2017 to include reference to decisions made in regard to amendments or the issue of permits under the Planning & Environment Act 1987.
- Initiative 2: Seek an amendment to the Planning & Environment Act 1987 to provide clearer direction on the consideration of climate change in assessment and decision-making.
- Initiative 5: Update Minister's Direction No. 11 – *Strategic Assessment of Amendments and Practice Note 46: Strategic Assessment Guidelines for Planning Scheme* amendments to ensure that Explanatory Reports prepared for every amendment include an explicit assessment against relevant climate change considerations including consistency with emission reduction targets over the life of any potential development, and any relevant adaptation measures.
- Initiative 6: Document preferred practice for the delivery of climate responsive planning through new or amended Practice Notes.
- Initiative 7: Establish principles, processes and the most appropriate mechanisms (i.e Public Acquisition Overlay, land swap) to ensure there is a sound basis for equitable and strategic relocation in areas of unmitigated risk, and to allow this process to begin early.
- Initiative 9: In addition to proposed updates to the Planning Policy Framework to embed emission reduction targets, include the explicit target of net zero emissions by 2050 as State policy.
- Initiative 11: Replace references at Clause 11 to require that planning is to contribute to 'net zero emissions outcomes' rather than "energy efficiency".
- Initiative 14: Update all references to benchmarks to reflect a 100 year cycle (e.g. rather than plan for 2100, plan for 2125) and update relevant interim benchmarks (2040 to 2070).
- Initiative 16: Support updates to the Purpose of the Planning Policy Framework but require inclusion of specific reference to sustainability, 'having regard to climate change', or similar.
- Initiative 19: Apply relevant Overlays (Land Subject to Inundation and Floodway Overlay) to land affected by coastal inundation to provide permit trigger.

- Initiative 20: Integrate references to place-based Coastal Adaptation Plans and Integrated Water Management Plans proposed by various State Government programs into Planning Schemes to ensure they are activated as soon as adopted.
- Initiative 22: Update Clause 56 to align with the findings of the CASBE led Sustainable Subdivisions Framework (pending completion of pilot phase).
- Initiative 23: Update the Planning Policy Framework to more comprehensively address renewable energy generation in State Policy.
- Initiative 24: Update the Planning Policy Framework to more comprehensively address climate change hazards in State Policy.
- Initiative 25: Include a Particular Provision/s that articulates mandatory minimum standards of Environmentally Sustainable Design in key areas such as energy efficiency, green infrastructure, electric vehicle readiness, etc.
- Initiative 26: Ensure that forthcoming updates to the Regional Growth Plans and their relevant background work integrates more explicit and spatially based recognition of climate change impacts and ensure these are considered in growth planning.
- Initiative 27: Update the Planning Policy Framework to more comprehensively address sustainable transport in State Policy.
- Initiative 32: Insert a new Clause in the Planning Policy Framework which recognises and addresses Green Infrastructure under Community Infrastructure (Clause 19.02).
- Initiative 34: Ensure that recent updates to the Victorian Planning Authority's Precinct Structure Planning Guidelines are aligned with the findings of the Sustainable Subdivisions Framework (pending completion of pilot phase).
- Initiative 35: Include requirements within the Victorian Planning Authority's Precinct Structure Planning Guidelines to require new communities to be net zero and designed appropriately to respond to climate change impacts.
- Initiative 36: Include explicit requirements for all decision-makers, under relevant legislation that all precinct planning should include the development of a Climate Change Response Plan which documents the estimated emissions for the precinct at full development potential, the anticipated impacts of climate change, and the measures that will be taken to deliver net zero and to integrate appropriate adaptation measures.
- Initiative 37: Update all coastal inundation data to align with scientific projections contained in the Sixth Assessment Report prepared by the Intergovernmental Panel on Climate Change (IPCC), having regard for any local variations identified through relevant Local Coastal Hazard Assessments.