

## CLIMATE CHANGE ADAPTATION STRATEGY REFRESH

### COMMUNITY ENGAGEMENT SUMMARY

NOVEMBER 2016

#### Executive summary

The City of Melbourne is updating its 2009 Climate Change Adaptation Strategy. The strategy aims to provide direction on how the City of Melbourne will plan, prepare and respond to changes in our climate and ensure that the municipality can survive and thrive. Engagement with the community during this process is essential as community priorities should always guide and inform our approach to adapt to climate change.

Community engagement took place via a discussion paper, followed by an online survey and workshops that aimed to identify challenges and solutions to climate change. The community identified the urban heat island effect and the more frequent and severe flood events as key challenges. The impacts of these challenges on vulnerable community members, the city's plants and animals, the way we travel to and from work and our general social wellbeing were of most concern.

To respond to these challenges, the community proposed to increase green, permeable spaces in the city, strengthen social connectedness and support vulnerable populations. The community also suggested that the strategy should promote the retrofitting of the city's infrastructure and incentivise the design of new building developments to better cope with extreme weather events.

The input from the community, together with the feedback received from our stakeholders (including business, government and academia) and our best practice analysis will be incorporated into the refreshed strategy, which is due to be released in the first half of 2017.

#### Background

Over the past 20 years, Melbourne has experienced many climate events that have affected the things we value. These events are likely to occur with greater intensity and/or more often under climate change. We are in particular likely to experience less rainfall and more chance of drought, extreme heatwaves and bushfires, intense rainfall and storms, and rising sea levels.

To manage these risks the City of Melbourne adopted a [Climate Change Adaptation Strategy](#) in 2009, the first of its kind in Australia, and has since worked to successfully implement the actions of this strategy.

Since 2009, the context for work in climate change adaptation and mitigation has changed:

- Resilience and adaptation have gained a greater focus on the international stage as global actors realise the importance of supporting countries to adapt to climate change, in addition to reducing greenhouse gas emissions. The Paris Agreement and UN Sustainable

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Development Goals both acknowledge adaptation and resilience as a critical part to combatting climate change.

- The Victorian State Government is developing a new Framework for action on climate change and its second Victorian Climate Change Adaptation Plan. The Climate Change Act will also be updated in line with the 2015 Independent Review.
- The People's Panel for the City of Melbourne's 10 year financial plan shows that climate change action should continue to be a priority. Future Melbourne 2026 also has a clear priority of climate adaptation action.
- The Northern Alliance for Greenhouse Action (NAGA) has produced an Integrated Regional Vulnerability Assessment for its member councils called 'Adaptation in the North'. City of Melbourne was an integral member of the project team.
- New approaches to adaptation planning, such as adaptation pathways and vulnerability assessments, have been shown to complement a risk based approach.
- Awareness of the impacts of climate change on urban centres and individuals is rising.

The City of Melbourne is now refreshing its 2009 strategy to reflect these changes and continue to strengthen our ability to maintain the things we value and love about our city, such as green space and quality of life. Best practice, expert input and the views of our community and stakeholders will inform this process. The draft refreshed strategy including revised actions and priorities will be taken to Council for approval in early 2017.

## Methodology

Engagement activities were designed to ensure the participation of a diverse range of community members as well as representatives from other specific stakeholders including businesses, government and academia. A discussion paper was released in August 2016 together with an online survey on Participate Melbourne. This was followed by two community engagement workshops, a stakeholder workshop and a public drop-in session.

This report provides a synthesis of the data collected from the online Participate Melbourne survey and each of the community engagement sessions. The outcomes of the stakeholder workshop are not detailed in this report as they are currently being refined to account for the community feedback and identify partnership opportunities through ongoing engagement.

## Discussion Paper

To guide the development of the new strategy, the City of Melbourne developed a [discussion paper](#), which summarises the work completed so far and proposed goals for the future. The discussion paper provided four tangible and relatable themes on which community members could focus their input: the natural, built, social and working environments.

A key objective of the discussion paper was to inspire community members to identify particular challenges and adaptation actions to protect what they value most. As climate change adaptation can involve an incredibly broad scope of actions, we developed the following key focus areas listed above.

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While some members of the community are more vulnerable to the impacts of climate change than others, we will all experience some degree of impact. Therefore, it was important that the community engagement process be as inclusive and accessible as possible. We achieved this by providing a range of flexible options for the community to submit their feedback on the discussion paper.

## Participate Melbourne

The City of Melbourne's online engagement platform, [Participate Melbourne](#), provided access to the discussion paper, updates and background on the strategy refresh. It also hosted a survey from August 4 – September 9, allowing respondents to provide feedback on the focus areas of the discussion paper and vote for preferred actions for the City of Melbourne to increase its climate resilience, all at a time of their choosing.

During this engagement period, 23 surveys were submitted, with the following demographic information collected:

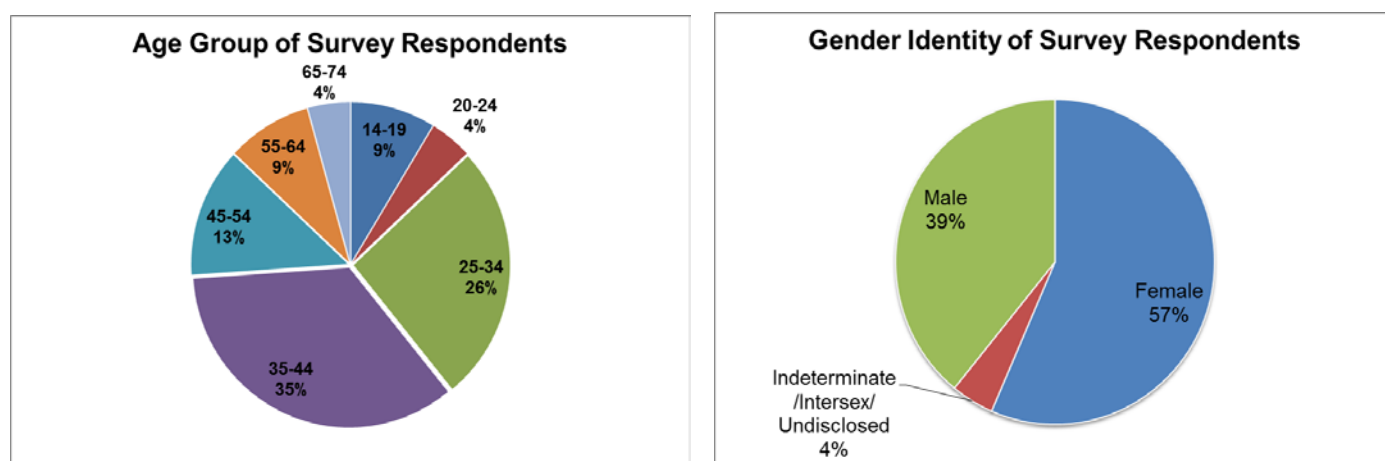


Figure 1a and 1b Demographic information reported by Participate Melbourne survey respondents.

## Public drop-in session

A public drop-in session was offered for community members to provide feedback on the discussion paper. This was an opportunity for members of the public to provide face-to-face or written feedback in an informal setting. The session was held during business hours in Melbourne's CBD on Wednesday 24 August. Although the session was publicised on Participate Melbourne only one community member attended.

## Community Engagement workshops

Two structured community consultation workshops were held outside working hours on Wednesday 24 August and Saturday 27 August. During each three hour session, community members were asked to first identify the challenges posed by climate change within each of the four focus areas and then provide their written input on possible solutions to these challenges. 65 people attended the workshops.

## Stakeholder Workshop

Stakeholders from business, government, essential service providers and academic institutions were invited to attend a workshop on the 8 September. 25 people attended this workshop and shared ideas on how the City Of Melbourne can work with them in partnership to adapt to climate change.

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## Community Engagement findings

The outcomes of the consultation process, including challenges and solutions identified by the community have been summarised according to the four focus areas listed below.

### The Natural Environment

The community highlighted two specific challenges for the natural environment: the threat of flooding from storm events and the impact of heat on the city's plants and animals. Community members highlighted the value of ecosystem services and the potential for the natural environment to increase the city's resilience to these challenges.

The solutions identified during the workshops in this focus area were:

- the need for more green infrastructure in the city, such as green roofs, walls and facades
- conversion of impermeable, grey infrastructure into greener, more permeable spaces
- supporting native flora and fauna through habitat creation and protection, such as nesting boxes and insect hotels
- continuing to increase water sensitive urban design (WSUD) in the city.

These reflect a broader movement within climate adaptation to utilise natural solutions to climate risk.

In both the survey responses and workshops there was a strong sense of using nature to build the resilience of the city's infrastructure. From the 23 survey responses, we received 75 individual votes for suggested actions to increase the use of the natural environment for climate adaptation. These are summarised in Figure 2 below.

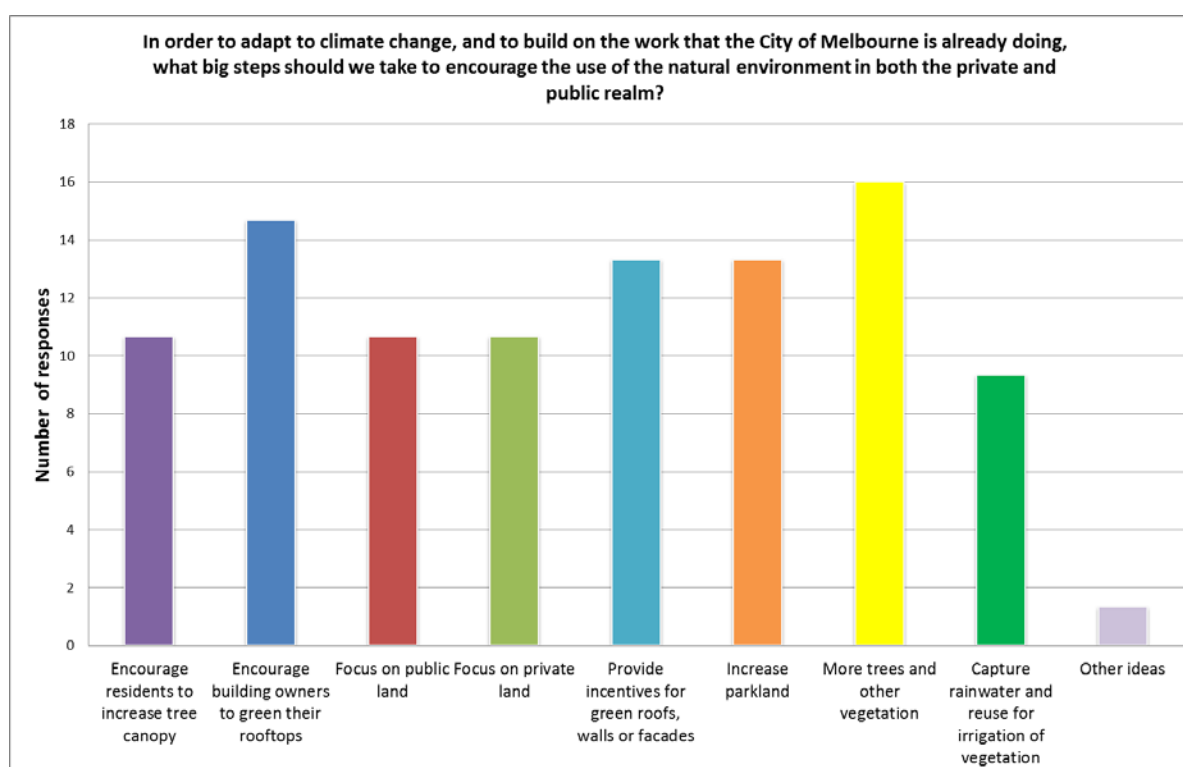


Figure 2 Responses to the Participate Melbourne survey question on options for use of the natural environment for climate change adaptation.

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## The Built Environment

Community members were concerned about the challenges posed by impermeable surfaces in the city during flood events, as well as the climate change contribution to the urban heat island effect. Suggestions to overcome these challenges were centred on physical changes to our built environment and legislation and regulation to influence change.

The community suggested that we investigate:

- the potential for floodable infrastructure to mitigate the impacts of floods during storm events. For example, designing the Yarra's edge to be occupied on different levels in high versus low-flow scenarios
- removal of impermeable road surfaces and replacement with permeable surfaces, such as through turf on tram tracks
- increasing energy supply efficiency and resilience, and the decentralisation of energy supplies through schemes assisting or mandating solar panels and battery storage
- promotion of more localised stormwater retention and reuse programs, such as assistance to households and businesses to install rainwater tanks
- mechanisms to cool key transport routes, such as shade on cycling routes
- influencing legislation to ensure Victorian building codes encourage/mandate green roofs and water collection on buildings
- inform regulation around minimum building standards.

The Participate Melbourne survey responses gave us some insights on how to best work with building owners and managers to improve the climate resilience of commercial buildings. The provision of incentives and information, and working with the insurance industry to reduce premiums were identified as the two most effective mechanisms – as shown in Figure 3.

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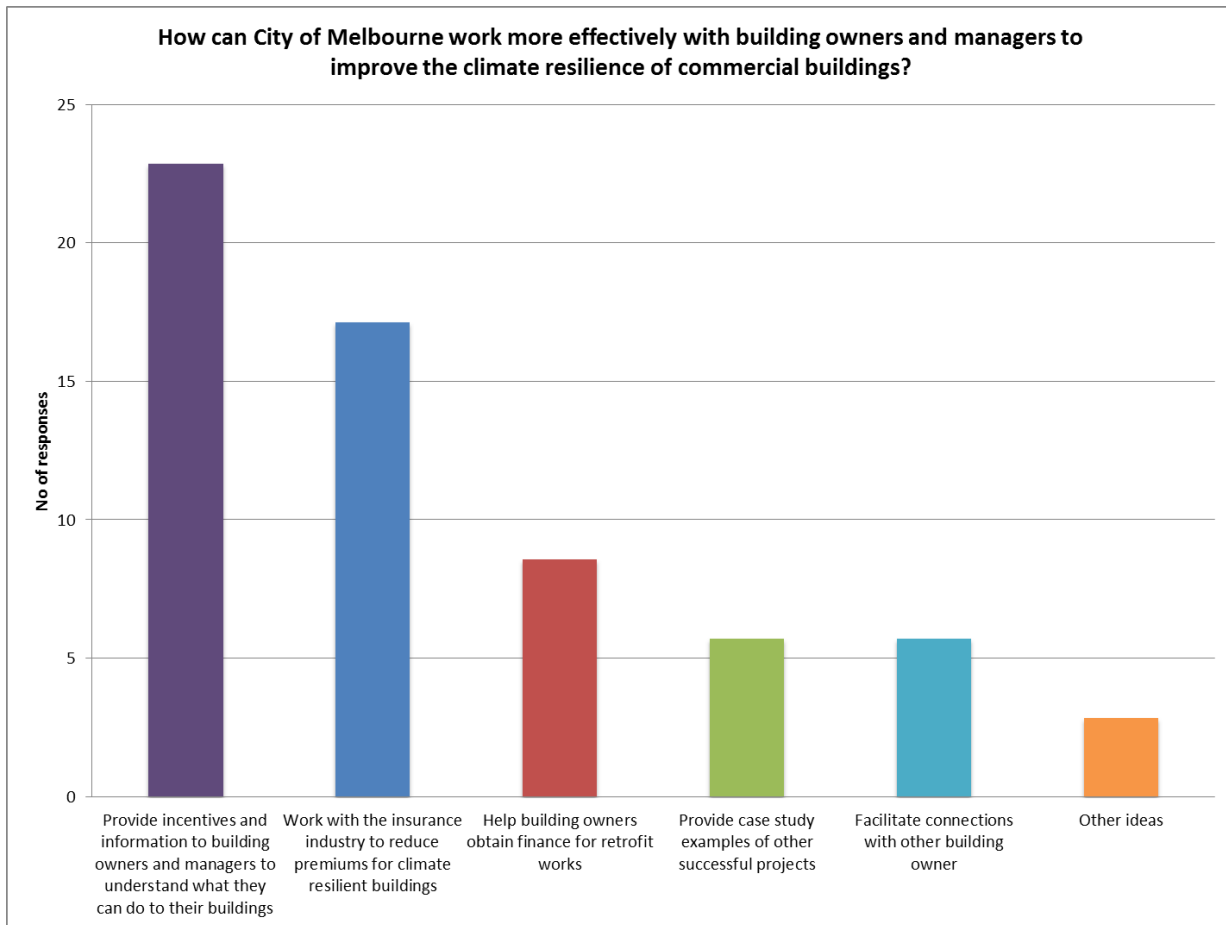


Figure 3 Participate Melbourne survey responses to question relating to improving climate resilience of commercial buildings.

When asked about what a climate resilient neighbourhood looks like, the Participate Melbourne respondents highlighted that a climate resilient neighbourhood has:

- a way to be adaptable to extremes
- multi-purpose assets
- blue and green infrastructure
- less high rise buildings
- increased bike access
- less cars on the roads.

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## The Social Environment

Community identified challenges for the social environment were reduced social wellbeing as a result of climate impacts on the things we value and the potential for vulnerable populations to be more severely impacted by climate change. In response to these, the community suggested to improve emergency responses and increase community connectedness.

Solutions identified during the community workshops were:

- social adaptation strategies driven by local communities and/or led by local champions to improve connectedness, especially in dense, high-rise urban areas
- design to increase connectedness, such as through community gardens and the reinvigoration of public spaces
- influencing behavioural change throughout our communities. An example of this could be a climate change adaptation educational program implemented in schools.
- cooling strategies for public spaces, including misting fans, shade, drinking fountains and pop-up pools
- targeted programs to enable businesses to support the homeless during extreme weather events. Examples provided were: continuing to make free pool passes available and establishing partnerships with ice-cream and smoothie companies to give free cold products to homeless people on hot days.

When asked how City of Melbourne can work with businesses and the community to increase resilience to extreme weather, the Participate Melbourne survey responses listed initiating collaboration and reducing large concrete spaces.

## The Working Environment

The challenges identified for the working environment were the impacts of heat and flood events on how we travel to and from work and the need to efficiently cool buildings. Several suggestions to cool transport corridors and buildings reflected those made in the 'Built Environment' focus area (see page 5).

In addition, the community proposed to:

- encourage agile working arrangements, such as through flexible working hours, to reduce the demand on transport corridors during heat or flood events
- provide shower and locker facilities that promote alternative modes of transport to work, such as cycling or walking.

It was also suggested that the City of Melbourne work in partnership with other organisations and community groups, such as through citizen science in its own work to adapt the city to climate change.

One community member, through the Participate Melbourne survey, gave the following innovative examples of how to be a leader in adapting to climate change in the working environment:

- Energy companies are investigating remote controlled public lighting to reduce energy use and emissions.

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- An energy demand response program that can provide a selective energy load when the network is under stress is under development.

The Participate Melbourne responders would like to engage further and contribute to the following areas:

- educational programs
- monitoring and evaluation
- cycling and public transport
- sustainable building requirements
- green spaces (green roofs, trees and vegetation)
- grass roots community solutions.

## Conclusions and next steps

The feedback collected through the engagement process identified a number of recurring themes as well as novel ideas and perspectives. It was clear that while the City of Melbourne can implement many of the suggested actions to adapt our city to climate change, numerous actions will require collaboration between multiple stakeholders.

This feedback, together with the outcomes of our ongoing engagement with stakeholders (including business, government and academia) and best practice and expert analysis will inform the content and direction of the updated strategy, which will be implemented from 2017 onwards.



## APPENDIX 1

### Participate Melbourne Online Survey Questions

**Which focus areas would you like to provide feedback on?**

- ☐ Focus area 1 - the natural environment
- ☐ Focus area 2 - the built environment
- ☐ Focus area 3 - the social environment
- ☐ Focus area 4 - our working environment

### Focus Area 1: The Natural Environment

**In order to adapt to climate change, and to build on the work that the City of Melbourne is already doing, what big steps should we take to encourage the use of the natural environment in both the private and public realm?**

- ☐ Encourage residents to increase tree canopy
- ☐ Encourage building owners to green their rooftops
- ☐ Focus on public land
- ☐ Focus on private land
- ☐ Provide incentives for green roofs, walls or facades
- ☐ Increase parkland
- ☐ More trees and other vegetation
- ☐ Capture rainwater and reuse for irrigation of vegetation
- ☐ Other ideas

### Focus Area 2: The Built Environment

**What does a climate resilient neighbourhood look like to you?**

**What measures can the City Of Melbourne take to minimise the future impacts of flooding?**

**How can the City Of Melbourne ensure that our public buildings are more climate resilient?**

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**How can City of Melbourne work more effectively with building owners and managers to improve the climate resilience of commercial buildings?**

- ☐ Provide incentives and information to building owners and managers to understand what they can do to their buildings
- ☐ Work with the insurance industry to reduce premiums for climate resilient buildings
- ☐ Help building owners obtain finance for retrofit works
- ☐ Provide case study examples of other successful projects
- ☐ Facilitate connections with other building owner
- ☐ Other ideas

**What else can City of Melbourne do to collaborative with and influence infrastructure and transport providers?**

## Focus Area 3: The Social Environment

**How can the City of Melbourne work with businesses and the community to increase resilience to extreme weather?**

## Focus Area 4: Our Work Environment

**To continue as a leader in this space, we are continually looking for positive stories and innovation; do you know of some great examples of innovation in adapting to climate change?**

**Measuring climate change adaptation and communicating the outcomes to the community can often be difficult; how should we measure and promote our progress?**

- ☐ Using creative arts to communicate outcomes
- ☐ Regular reporting
- ☐ Accessible data for the public
- ☐ Social media tools
- ☐ Information in community hubs
- ☐ Other ideas

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After looking through the focus areas, are there any in particular you would like to be further engaged with in shaping? How would you like to contribute?

**Email** Required

**Age Group**

- ☐ Under 14
- ☐ 14-19
- ☐ 20-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65-74
- ☐ 75 or older

**Gender Identity**

- ☐ Female
- ☐ Male
- ☐ Indeterminate/Intersex/Undisclosed

**Residential postcode**

**How would you like to be updated?**

- ☐ For this project only
- ☐ New projects and monthly newsletter
- ☐ I agree to the [Privacy Statement](#) for using Participate Melbourne Required