

Report to the Future Melbourne Committee**Agenda item 6.2****Heat Safe City Principles****14 November 2023****Presenter:** Tiffany Crawford, Co-Director Climate Change and City Resilience**Purpose and background**

1. The purpose of this report is to seek approval from the Future Melbourne Committee of the City of Melbourne's Heat Safe City Principles ('the Principles', Attachment 2).
2. Extreme heat is Australia's deadliest natural hazard. It poses significant risks to the health and economic wellbeing of the community, and the delivery of Council operations.
3. By 2050, Melbourne is expected to experience more than 16 days of above 35 degree Celsius temperatures each year. On 19 September 2023, the Bureau of Meteorology declared an El Niño event, signalling the start of a hotter and drier weather pattern.
4. Reducing the harmful impacts of heat on the community is a priority of the Council Plan and Health and Wellbeing Plan 2021–25, and several related major initiatives including Major Initiative 52: Community Disaster Resilience. The City of Melbourne has outlined directions to reduce heat risk and cool the city in existing strategies, including its Climate Change Adaptation Strategy, Urban Forest Strategy, Greening Our City Strategic Action Plan, and Health and Wellbeing Action Plan.
5. A study of the 2014 heatwave found that it had a negative impact on demand, sales and profitability within the municipality. There was an average revenue decline of 10 per cent over the heatwave period, with the decline being felt greatest among the retail trade sector, which suffered an estimated decline of 22 per cent in revenue. This equated to an estimated revenue loss of \$37 million across the municipality.
6. While management is taking action to reduce heat risk, this extends across numerous functional areas and strategic documents. There is opportunity to better integrate and align action on extreme heat internally, and simplify the way communications are managed externally.

Key issues

7. The Principles outline Council's ambitions and priorities for action. They have been developed in response to community engagement findings and draw from existing City of Melbourne strategies.
8. Implementation of the Principles requires a mix of City of Melbourne led delivery, partnering with other organisations and advocating for change.
9. If approved, the Principles will be used to: inform management's approach to policy and program design, facilitating consistency and coordination; underpin advocacy on heat risk, including directly to state and federal governments, and working with local government partners; and used to communicate Council's action to reduce heat risk, making connections between health, cooling and disaster preparedness clear.

Recommendation from management

10. That the Future Melbourne Committee:
 - 10.1. Approves the Heat Safe City Principles (Attachment 2 of the report from management) as a framework to inform the City of Melbourne's approach to heat risk reduction activities.
 - 10.2. Authorises the General Manager Strategy, Planning and Climate Change to make editorial changes, corrections, formatting and design necessary to finalise the Heat Safe City Principles prior to their publication.

Attachments:

1. Supporting Attachment (Page 2 of 13)
2. City of Melbourne Heat Safe City Principles (Page 4 of 13)
3. Analysis of Community Engagement Results (Page 6 of 13)

Supporting Attachment

Legal

1. There are no direct legal implications from endorsing the Principles.

Finance

2. There are no direct financial implications of this recommendation. Actions proposed are within the scope of existing Council endorsed budget for Major Initiatives.

Conflict of interest

3. No member of Council staff, or other person engaged under a contract, involved in advising on or preparing this report has declared a material or general conflict of interest in relation to the matter of the report.

Health and Safety

4. The Council Plan 2021–25 commits City of Melbourne to plan and design for the safety and wellbeing of those who live, visit, work and do business in Melbourne, regardless of their background. One of the major initiatives under this commitment is to engage and prepare residents and communities to enhance their resilience to hazards, disasters and the health impacts of climate change. The recommendations in this report have been developed in line with this commitment.
5. Along with greater risk of mortality, heatwaves also put pressure on health services. The 2009 heatwave increased demand on health services including a 46 per cent increase in ambulance callouts and a 12 per cent increase in emergency department presentations.

Stakeholder consultation

6. Community engagement was undertaken online and in person between 23 February and 7 April 2023 to understand community concerns about extreme heat, with a focus on health impacts. Eighty per cent of respondents said they were concerned or strongly concerned about the health risks heat poses to others in their community, and 77 per cent of respondents stay indoors on a hot day or during a heatwave. The Community Engagement Report is set out at Attachment 3.
7. To understand the issues individuals and community service organisations face during extreme heat events, engagement has been held with Council to Homeless Persons, Victorian Council of Social Services, Unison Housing and Sweltering Cities, which convenes the Greater Melbourne Heat Alliance.

Relation to Council policy

8. The Principles support the delivery of several Council Plan Major Initiatives including:
 - 8.1. Major Initiative 11: Embed the Sustainable Development Goals in the way City of Melbourne plans, prioritises its investments, reports and benchmarks against other cities.
 - 8.2. Major Initiative 28: To enhance Melbourne's position as a global leader on climate action, we will undertake bold advocacy on behalf of our community.
 - 8.3. Major initiative 31: Deliver on our Urban Forest Strategy including tree canopy, private greening incentives and city greening.
 - 8.4. Major Initiative 35: Implement the Climate and Biodiversity Emergency action plan.
 - 8.5. Major Initiative 52: Engage and prepare residents and communities to enhance their resilience to hazards, disasters and the health impacts of climate change.

9. The Principles are consistent with the following Council policies and strategies:
 - 9.1. Climate Change Adaptation Strategy Refresh 2017
 - 9.2. Urban Forest Strategy 2012–32
 - 9.3. Climate and Biodiversity Emergency Declaration Response 2020
 - 9.4. Green Our City Strategic Action Plan 2017–21
 - 9.5. Municipal Integrated Water Management Plan 2017
 - 9.6. Health and Wellbeing Action Plan 2021–25
 - 9.7. Asset Plan 2021–31
 - 9.8. Municipal Emergency Management Plan
 - 9.9. Open Space Strategy.

Environmental sustainability

10. The recommendation highlights Council's commitments to manage climate change risk, as outlined in the above endorsed strategies.
11. The Principles demonstrate leadership and innovation in addressing the impacts of urban heat and provide an example for other cities to follow.

City of Melbourne Heat Safe City Principles

Principle	Strategic Alignment	City of Melbourne's role
How we help people to prepare for heatwaves		
Every member of the community understands their heat risk and knows what action to take to reduce their risk	<ul style="list-style-type: none"> • Climate Change Act 2017 (VIC) • Major Initiative 52 • Municipal Public Health and Wellbeing Plan 	<ul style="list-style-type: none"> • Deliver • Collaborate with partners to also deliver.
Every member of the community can access a cool public place within walking distance of their home	<ul style="list-style-type: none"> • Municipal Public Health and Wellbeing Plan • Open Space Strategy 	<ul style="list-style-type: none"> • Deliver • Collaborate with partners to also deliver
Every resident has a cool place in their home	<ul style="list-style-type: none"> • Affordable Housing Strategy 2020-2030 • Municipal Public Health and Wellbeing Plan • Climate and Biodiversity Emergency Action Plan/ Major Initiative 28 	<ul style="list-style-type: none"> • Advocate
How we cool the city and boost thermal comfort		
The city is cooled by increasing the quantity and quality of green infrastructure wherever possible	<ul style="list-style-type: none"> • Council Plan 2021-2025 • Climate Change Adaptation Strategy • Green our City Strategic Action Plan • Greenline Implementation Plan • Municipal Public Health and Wellbeing Plan • Planning amendment C376 • Urban Forest Strategy / Major Initiative 31 	<ul style="list-style-type: none"> • Deliver • Collaborate with partners to also deliver
The city is prepared for drought by increasing alternative water supply	<ul style="list-style-type: none"> • 10 Year Asset Plan • Climate Change Adaptation Strategy • Municipal Integrated Water Management Plan 	<ul style="list-style-type: none"> • Deliver • Collaborate with partners to also deliver • Advocate

<p>The city is planned and built to increase thermal comfort</p>	<ul style="list-style-type: none"> • Council Plan 2021-2025 • Climate Change Act 2017 (VIC) • Climate Change Adaptation Strategy • Future Streets Framework 2030 and Beyond (Draft) • Major Initiative 30 • Planning amendment C376 • Transport Strategy 2030 	<ul style="list-style-type: none"> • Deliver • Collaborate with partners to also deliver • Advocate
How we work at council and adapt operations		
<p>Our staff understand how heat affects their safety and the delivery of council services, and take action to prepare for and reduce risk</p>	<ul style="list-style-type: none"> • 10 Year Asset Plan • Municipal Emergency Management Plan • Major Initiative 52 • Heat and Sun Protection Policy (internal document) 	<ul style="list-style-type: none"> • Deliver
<p>We prioritise the most vulnerable members of the community in decisions about heat risk</p>	<ul style="list-style-type: none"> • Council Plan 2021-2025 • Major Initiative 52 • Municipal Public Health and Wellbeing Plan • Corporate Strategy: Driven by insight (internal document) 	<ul style="list-style-type: none"> • Deliver
<p>We are innovative in how we design and deliver policy, services and places to reduce heat risk</p>	<ul style="list-style-type: none"> • Council Plan 2021-2025 • Climate and Biodiversity Emergency Action Plan / Major Initiative 35 	<ul style="list-style-type: none"> • Deliver
<p>We partner with other organisations to maximise our impact and advocate for change</p>	<ul style="list-style-type: none"> • Climate and Biodiversity Emergency Action Plan/ Major Initiative 28 • Corporate Strategy: Connected and collaborative (internal document) 	<ul style="list-style-type: none"> • Deliver

Heat Safe City

Analysis of Community Engagement Results

May 2023

Project Background

Due to climate change, Melbourne is experiencing more hot weather and heat wave events than ever before. In Melbourne, we currently average 11 days greater than 35 degrees and expect this to rise to 16 days by 2050.

City of Melbourne is committed to reducing the threat of extreme urban heat for all, particularly vulnerable people. Our goal is that the city provides places of respite for residents, workers and visitors during extreme heat events.

To achieve this goal and build a heat safe city, we wanted to better understand the issues our community faces during an extreme heat event.

Community engagement

A project overview was provided on Participate Melbourne including details about about why we need a Heat Safe City and how we can create one.

Between 24 February 2023 and 7 April 2023, we asked the community to provide feedback via an online survey and 'hot spots' map. We also completed in-person engagement activities and stakeholder meetings with:

- Senior citizens in South Yarra
- Families with young children in Docklands
- Public housing residents in Kensington
- West Melbourne residents at Future Melbourne Committee Meeting
- Council to Homeless Persons Peer Education and Support Program members.

The purpose of the engagement was to:

- To communicate the City's vision for a heat safe city
- To encourage the community to provide feedback on their heat health priorities and locations that need cooling

During the engagement period, 650 individual visitors accessed the Participate Melbourne project pages, 137 online surveys were received, 44 pins marked on the 'hot spots' map and 50 individuals engaged through face-to-face engagement activities and stakeholder meetings.

Survey respondents

Age of survey respondents

15-19 years of age	20-29 years of age	30-39 years of age	40-49 years of age	50-59 years of age	60-69 years of age	70-79 years of age	80-89 years of age	Prefer not to say
1	9	30	25	26	32	9	1	4

Survey respondents' connection to the project

Resident	Worker	Business owner	Student	Visitor	Prefer not to say	Other
105	12	3	3	8	1	5

Where survey respondents live

Carlton	CBD	Docklands	East Melbourne	Kensington	North Melbourne	Parkville	Southbank	South Yarra	West Melbourne	Fishermans Bend	Other
11	30	17	10	11	17	3	15	2	12	1	7

Survey responses

Please indicate level of concern with the following statements:

Health risks that heat pose to me

Not concerned	Mildly concerned	Concerned	Strongly concerned	Require further information
23%	23%	23%	29%	2%

Health risks that heat pose to others in my community

Not concerned	Mildly concerned	Concerned	Strongly concerned	Require further information
7%	13%	23%	56%	1%

Thinking about the last extreme heat day, where did you receive information from about the high heat day?

Website or app	61%
News	51%
Social media	18%
Family/friend	12%
Other	7%
Neighbour/Word of mouth	6%
I wasn't aware it was going to be a hot day	5%

On a hot day which of these did you do?

Close blinds and curtains during the day	78%
Stay indoors	77%
Use an air conditioner	67%
Fans/other cooling	49%
Cancel plans to avoid exposure to hot spaces	49%
Use external window shades or awnings to block the sun	39%
Visit a public building with air conditioning	21%
Change my work hours and commute	19%
Check on your family and neighbours	19%
Keep yourself cool by applying wet towels etc.	15%
Swimming pool/beach	15%
Other	7%
Visit a friend of family that has air conditioning	2%

Other actions people take include:

- Drink more water and carry water around
- Seek shade when walking
- Seek shade under trees and at local parks

Does your home have features which keep it cooler on hot days?

Air conditioning	81%
Awnings or blinds	72%
Working windows and doors	64%
Insulation	48%
Ceiling fans	23%
I do not have any cool features	6%
I go to public spaces and facilities on hot days	5%

Which factors do you consider when deciding to use or not use the cooling features in your home?

Energy bills	81%
The physical wellbeing and comfort of others in my household	72%
Mental Wellbeing	64%
Other	48%
My physical wellbeing and comfort	23%

Other factors considered when deciding to use or not use cooling features in homes:

- Emissions generated from energy use
- The inability to install cooling features due to renting rather than owning the property
- The comfort of pets

What cooling solutions would you like to see more of in the city?

Survey respondents ranked the following cooling solutions as their most preferred:

1. Trees
2. Cool green corridors such as linear streetscapes of trees, vegetation and water bodies
3. Shade structures
4. Green walls, roofs and facades
5. Garden beds and raingardens
6. Water bodies such as water features, fountains and ponds
7. Cool and light coloured pavement
8. Misting and water play
9. Permeable pavement

Survey respondents also raised the following suggestions for cooling solutions in the city:

- Shading and misting along pedestrian corridors and shopping strips
- Expanding green space and replacing asphalt with greenery and light coloured paving
- Reducing cars and parking spaces in the CBD
- Water play and swimmable waterways
- Incentives and guidelines for greening on private property
- Building standards to increase greening and the use of light coloured materials

What services and facilities could the council offer to help you stay cool during hot days?

Survey respondents ranked the following services and facilities as their most preferred:

1. Parks and gardens
2. Cooling centres I.e. libraries and community hubs
3. Pools
4. Warnings and notifications
5. Community education materials and seminars

Survey respondents also raised the following suggestions for services and facilities the council could offer:

- Improving accessibility of cool community centres that provide respite areas for vulnerable communities
- Indoor play and water play facilities
- Services like heat kits, drink vouchers, shuttle buses to take people to cool places and appointments
- Programs and subsidies to improve energy efficiency of homes
- More shade along shopping strips, bus stops and tram stops
- Environmental monitoring and community education

Hot spots map

Users were asked to drop a pin on a map to identify local 'hot spots' and leave comments about that location. Respondents identified 44 hot spots across the municipality (see Figure 1).

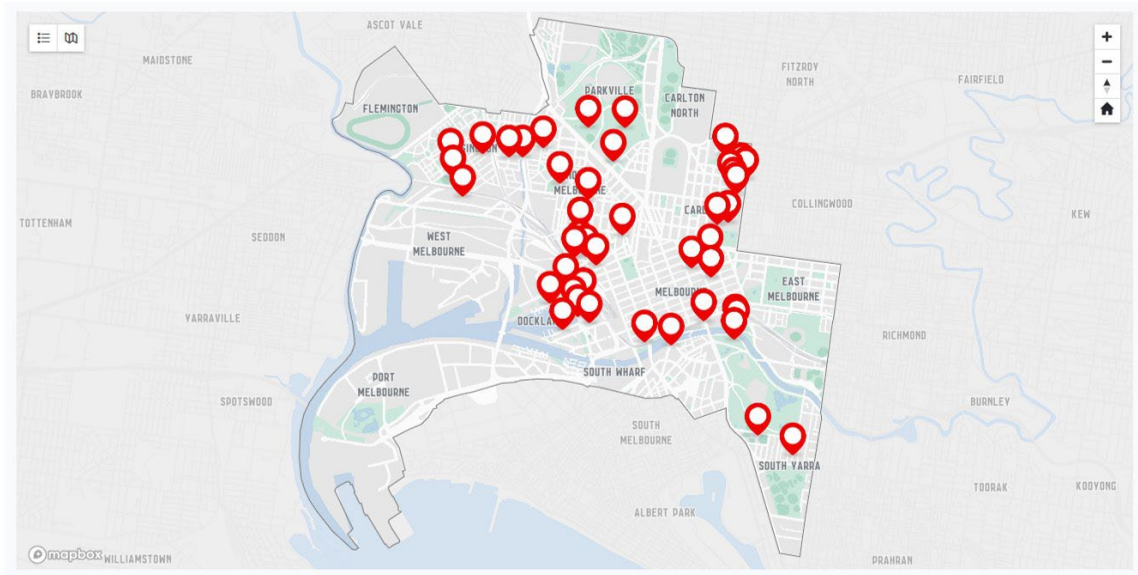


Figure 1: Local 'hot spots' map

Respondents suggested the following types of locations for cooling intervention:

Type of location	Location examples	Comments
Intersections, walkways and promenades	Flinders Street Station intersection	'This entire intersection, especially the south side (Flinders Station and Fed Square sides) is sooo hot.'
	Harbour Esplanade, Docklands	'The entire foreshore of the Harbour Esplanade facing Victoria Harbour at Docklands is very hot and offers no real shade other than the odd small tree. The distance between them is massive. Even so, the immediate water's edge area for tourists offers no respite from the heat with amazingly no seating options either.'
	Marvel Stadium	'Walking between West Melbourne and docklands is very exposed and gets very hot at times. The new trees are a welcome addition and might help in a few years but the walk across the bridge and along Harbour esplanade is so exposed and hot.'
Plazas	Royal Exhibition Building and Melbourne Museum Forecourt	'The area between the Museum and REB (where the summer play was) is incredibly hot, glary and heat affected.'

		'The paths either side of the Exhibition Building and the museum are heat traps with zero shade. This could be easily fixed with some strategic plantings.'
	Southbank	The area in front of the little cement stadium is such a sun trap and hot spot. Even though this area is for entertainment the heat generated from the sun in this immediate area could cause health problems. The distance from tree-to-tree cover in this area is quite large. Shade is not existent in full sun days.
Playgrounds and picnic areas	Royal Park Nature Play Playground	'Lack of shade over playground and picnic areas.'
	Station Street Park, Carlton	'Little shade over the play equipment.'
Public transport stations, platforms and shelters	Macaulay Station and rail corridor	'The absence of any trees around Macaulay Station or for that matter along the rail corridor and adjacent bike trail means this area suffers from a lot of radiant heat.'
	South Kensington Station	'South Kensington station. Narrow platforms. Limited services. Hardly any shelter. Heard of people experiencing heat stroke here on hot days waiting for train.'
Wide streets, median strips and linear parks	Victoria Street, North Melbourne	'For most of Victoria St there's limited shade, and because there are very few nature strips in North Melbourne, it's all hot hard surfaces.'
	Arden Street, North Melbourne	'The full southern side of Arden st is exposed to full sun creating a source of considerable radiant heat that lasts long after the sun has set making this and the adjoining areas very hot.' 'Most of the streets between Arden and Spencer St have very few to nothing in the way of street trees and even less on private property with few exceptions. The result is very solid hot zone.'
	Macaulay Road, North Melbourne	'Macaulay Road has limited shade, which is under threat from development, with some street trees having recently been removed, and two large trees on private land proposed to be removed as part of a current development application.'
	Hawke Street, West Melbourne	'I look forward to the two Hawke Street parks joining up to form one long Hawke Street strip park, as the CoM has described as being on the agenda. More green space required in good ol' industrial West Melbourne. Hawke Street has a green median strip in places, but more required please.'
Paved streets surrounded by high density development	Little Lonsdale and Little Bourke Streets	'On 30 degree plus, the pavement and walls in Little Bourke Street between Russell and Exhibition Street absorb then radiate unbearably hot conditions.'

Face-to-face engagement

We met with community members and stakeholder groups in Kensington, South Yarra, CBD, West Melbourne and Docklands.

Feedback we heard from all groups:

- Accessible community facilities and services are needed for those in low quality housing.
- Practical resources like welfare kits for vulnerable community members would be valuable.
- Community service organisations knowledge of the available resources to share with community members could be expanded.
- There is a lack of community facilities in Docklands that cater for respite. The current location of the Community Hub and Library is difficult to walk to from the other side of the harbour.
- There is concern for the amount of greenery that is getting lost with the construction that is occurring across the city.
- Community members would like to see more greening included in new developments.
- Programs that support installation and efficient use of air conditioning would be useful.
- It is difficult for public housing residents to make modifications to their housing. Further support for residents in public housing to access cooling infrastructure and make modifications to apartments.

The Council to Homeless Persons Peer Education and Support Program members specifically raised the following:

- Increased support for those experiencing homelessness and sleeping rough is required. This could include:
 - Improved access to clean water, toilets, showers, power and charging devices.
 - Increased opening hours of facilities such as pools
 - Storage facilities for medication
 - Grab-and-go welfare kits
 - Drop-in centres to provide resources and information

How feedback will be used

Heat Safe City principles and advocacy positions

Insights from this survey will inform the development of Heat Safe City principles that will guide heat action at the City of Melbourne and provide focus for advocacy positions to address extreme heat issues for our community which are not within City of Melbourne's remit.

Heat Safe City projects

The insights gained through these consultation activities will provide an understanding of key ideas and opportunities for heat safe city projects that have the greatest community support. It will inform the prioritisation of heat safe city projects for next and future summers.