

Tuesday 18 August 2020 at 5:30 pm

in the Colonel Light Room Adelaide Town Hall



Members - The Right Honourable the Lord Mayor, Sandy Verschoor;

Deputy Lord Mayor, Councillor Hyde (Chair)

Councillors Abrahimzadeh, Couros (Deputy Chair), Donovan, Hou, Khera, Knoll,

Mackie, Martin, Moran and Simms.

1. Acknowledgement of Country

At the opening of the Committee Meeting, the Chair will state:

'Council acknowledges that we are meeting on traditional Country of the Kaurna people of the Adelaide Plains and pays respect to Elders past and present. We recognise and respect their cultural heritage, beliefs and relationship with the land. We acknowledge that they are of continuing importance to the Kaurna people living today.

And we also extend that respect to other Aboriginal Language Groups and other First Nations who are present today.'

2. Apologies and Leave of Absence

Nil

3. Confirmation of Minutes - 4/8/2020 & 5/8/2020 [TC]

That the Minutes of the meeting of The Committee held on 4 August 2020 and the Special meeting of The Committee held on 5 August 2020, be taken as read and be confirmed as an accurate record of proceedings.

4. Discussion Forum Items

Presentations

Strategic Alignment – Enabling Priorities

4.1. Presentation – City Data and Insights [2018/04518] [Page 2]

Workshops

Strategic Alignment – Strong Economies

4.2. Workshop - City Wide Business Model [2019/00615] *To be distributed separately*

Strategic Alignment - Environmental Leadership

4.3. Workshop - Climate Ready City [2017/04753] [Page 11]

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CITY DATA + INSIGHTS **Economic Outlook**

City of Adelaide's Gross Regional Product (GRP) is about 18.2% of South Australia's Gross State Product (GSP). When our fortunes change, so do the State's

City of Adelaide GRP 110.2%

Forecast for June quarter compared to 2018/19 4-quarter average

Value added impact forecast (June quarter 2020)

arts and recreation **168.3%** services

accommodation | 67.2% and food services

other services **164.3%**

Jobs available in the City of Adelaide are forecast to fall by 7.6%

The impact on our residents is even greater

employed resident impact \$\ \begin{array}{c} \ 9.5 \ \ \ 0 \end{array}\$

Compared to 2018/19 4-quarter average

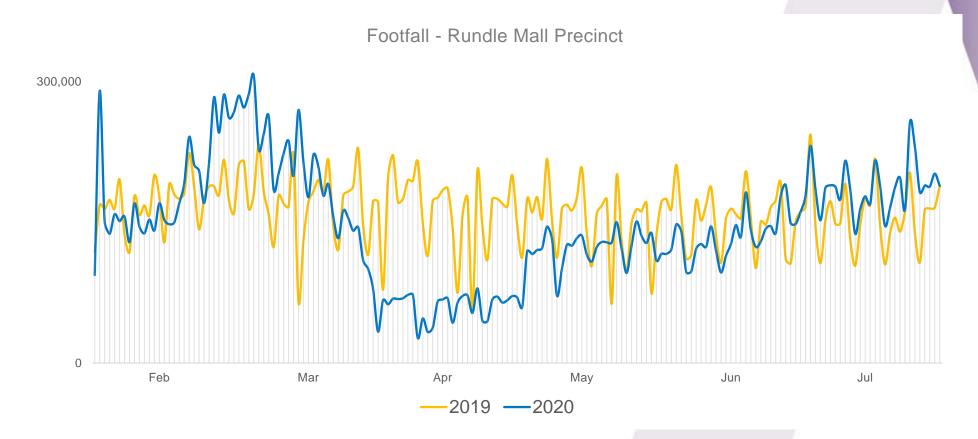
This information is new forecasting from the National Institute of Economic and Industry Research. We have access to this through our subscription to Economy.id. These forecasts were prepared on the basis of information available at 7 May 2020. They will be updated from time to time. See

https://economy.id.com.au/adelaide/covid19

Source: National Institute of Economic and Industry Research (NIEIR) Version 1.1 (May 2020). ©2020 Compiled and presented in economy.id

Footfall is an indicator of the presence of people

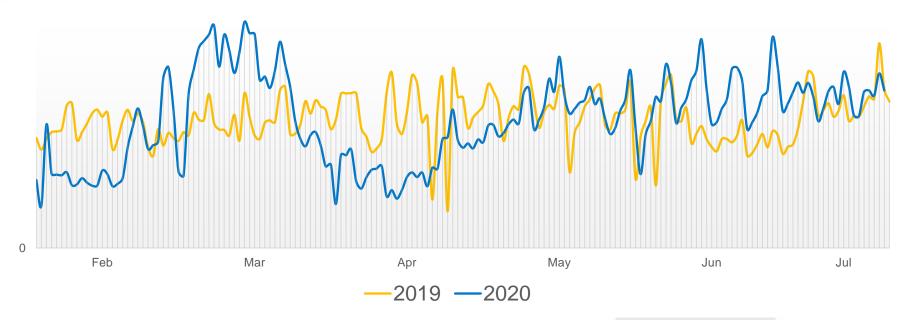
In Rundle Mall footfall is beginning to return to similar levels to this time last year



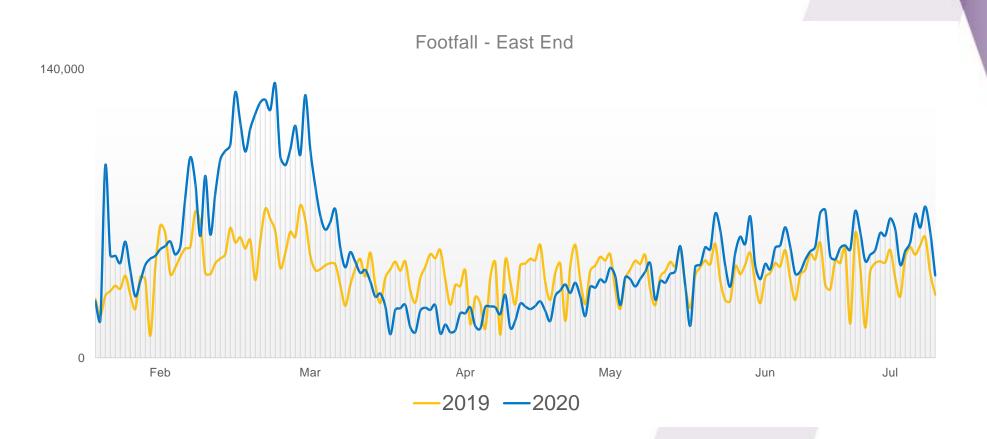
Other main streets are recovering too In some cases pre-COVID footfall was already down on the previous year

Footfall - O'Connell Street





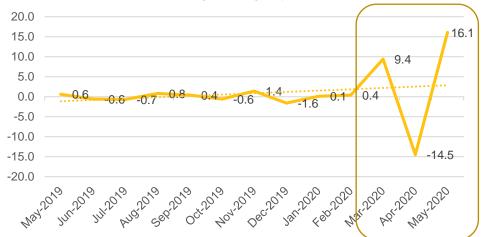
In the East End footfall for June is up on 2019 levels!



CITY DATA + INSIGHTS Retail and spending

We saw a buying spree in March and a discretionary spend crash in April. What does the future hold?





Spending habits are changing. More people expect to make a greater proportion of their purchases online than before.

across Australia clothing, footwear and personal accessory retailing

up 129%

the seasonally adjusted estimate rose for clothing retailing (148.5%), and footwear and other personal accessory retailing (98.4%).

online retail turnover in May 10.1%

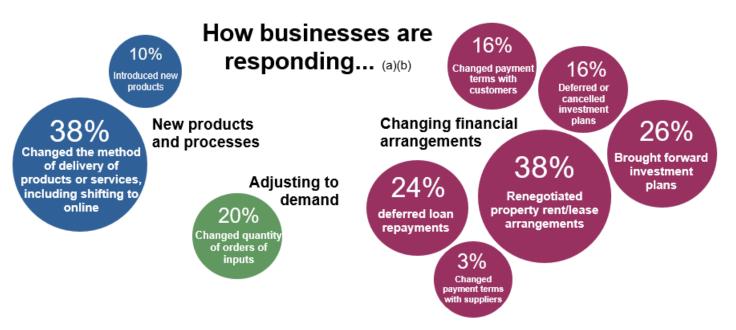
of total retail turnover in May 2020 (was 6.2% in May 2019)

Sources: McKinsey Research (June 2020), Survey of Australian Consumer Sentiment (June 2020) n=799; Australian Bureau of Statistics, Household Impacts of COV/The Committee Meeting-Agenda e180August 20200

CITY DATA + INSIGHTS **Business resilience and jobs**

Australia-wide businesses are adjusting their operations to engage with the changing environment.

Small businesses are least likely to have made changes.



⁽a) Proportions are of businesses currently trading.

⁽b) Businesses could select more than one option.

Property market

Construction is a growth-dependent sector

South Australia depends on migration for growth

Australia's migration expectation for 2020-2021 485%

to 36,000 people from 239,600 in 2018-2019

Property sentiment is down across all of Australia's property sectors except industrial property.

expect the economy to worsen over the next 12 months

74%

of respondents to the ANZ-Property Council Survey, June 2020

have experienced a moderate or severe negative impact from COVID-19

72%

of respondents to the ANZ-Property Council Survey, June 2020

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People drive the economy and the life of our city.

Concern about out of home activities continues.

Biggest concerns:

35%
a crowded outdoor public place

39% public transport

45% attend a large event

49%

Travel by **plane**

What precautions are people taking?

keeping distance from people 92% avoiding social gatherings avoiding public spaces 57%

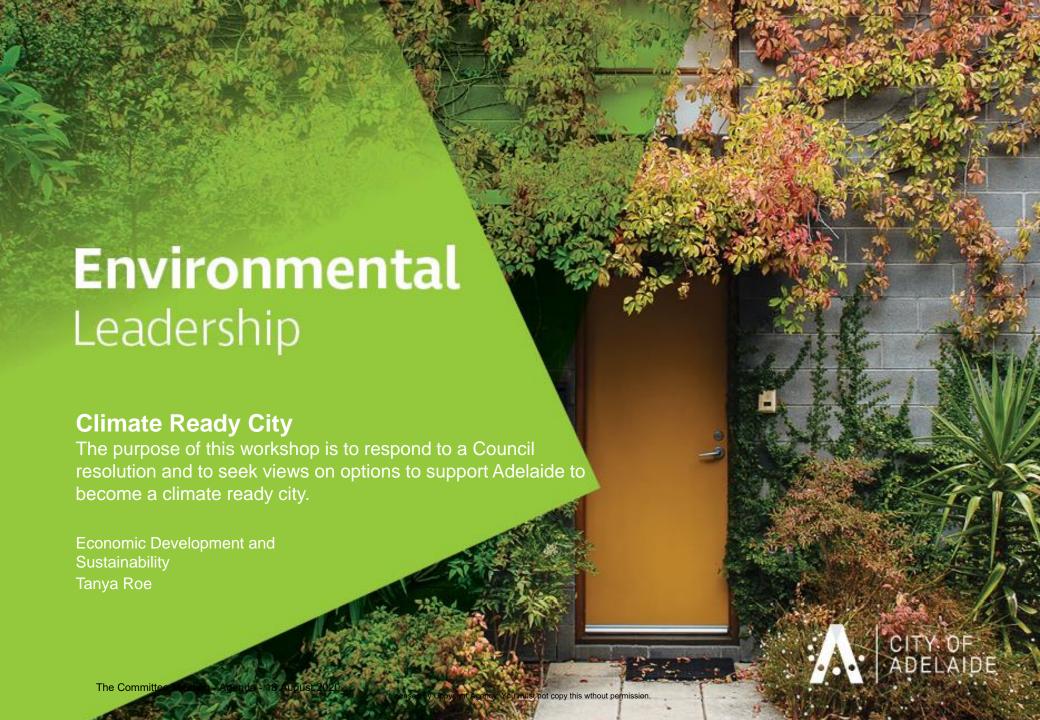
avoiding public transport 52%

When will routines return to normal'?

two to six months 46% between 7-12 months 24%

more than 25%

less than two months 50/



Climate Ready City Purpose

The purpose of this workshop is to respond to the Council resolution (below), and to seek views on options to support Adelaide to become a climate ready city. Council has previously resolved:

That Council

- 1. Recognises that the City of Adelaide has been taking action to respond to climate change for over 20 years, through reducing our own emissions and supporting our community to reduce their emissions and become 'climate ready';
- 2. Supports Administration's continued delivery of programs (as part of the 2019-2020 budget) that support our community in taking urgent action to further reduce Adelaide's emissions.
- 3. Investigates new opportunities beyond the current budget cycle, to ensure Adelaide is climate ready and heat prepared, including improving water resilience and ensuring an equitable distribution of greening in city streets.'

KEY QUESTION

What are Council Members' views on the proposed climate ready initiatives to tackle **urban heat**?

KEY QUESTION

What are Council Members' views on the proposed climate ready initiatives to improve water resilience?

KEY QUESTION

What are Council Members' views on the proposed climate ready initiatives to increase greening?

Climate Ready City Implications

Implication	Comment
Policy	City of Adelaide's Strategic Plan 2020-2024: Environmental Leadership – Enhanced Greening and Biodiversity, A Climate Ready Organisation and Community. Strategic Priority - Lead the way in climate action and manage water, waste, transport and greening in a sustainable way Key Action 4.01 Increase street tree canopies and green infrastructure in city hot spots and public spaces. Key Action 4.03 Educate and support our community to be zero-waste, water sensitive, energy efficient and adaptive to climate change. Key Action 1.10 Support delivery of welcoming civic infrastructure / third spaces to foster community connections through the adoption of universal and sustainable design principles. Resilient East Climate Change Adaptation Plan 2016
Consultation	Internal consultation has occurred on opportunities to ensure Adelaide is climate ready through reducing urban heat, improving water resilience and increasing greening. This has occurred through development of a water sensitive city transition plan, the sustainable assets program and corporate climate risk assessment.
Resource	Existing work is being funded through the Climate Change Action Initiatives Fund 2020/21 budget.
Risk / Legal / Legislative	Not as a result of this workshop.
Opportunities	Seek State Government funding through Green Adelaide's Greener Neighbourhoods Grant Program and Water Sustainability Grant Program. Continue to collaborate with Resilient East on climate ready community projects.

Climate Ready City **Budget/Financial Implications**

Implication	Comment
19/20 Budget Allocation	Existing work is being funded through the Climate Change Action Initiatives Fund 2020/21 budget.
19/20 Budget Reconsideration (if applicable)	Not as a result of this workshop.
Proposed 20/21 Budget Allocation	Not as a result of this workshop.
Life of Project or Life Expectancy of Asset	Not as a result of this workshop.
Other Funding Sources	Seek State Government funding through Green Adelaide's Greener Neighbourhoods Grant Program and Water Sustainability Grant Program. Continue to collaborate with Resilient East on climate ready community projects.

Climate Ready City Background Context

What is 'Climate Ready'?

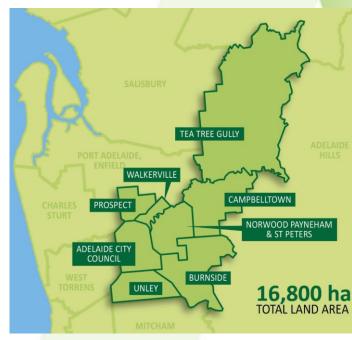
Being climate ready means understanding how climate change will affect Adelaide and preparing our organisation and community for the impacts of climate change.

Climate change impacts on Adelaide include:

- more frequent, long-running and intense heatwaves
- less rainfall overall (particularly in Spring), but an increase in the intensity of heavy rainfall events and flooding
- · more frequent and extreme fire danger days
- increasing average temperatures across all seasons.

The City of Adelaide (CoA) has a strong history of taking climate change mitigation and adaptation action to prepare the city and community for the impacts of climate change through:

- Carbon Neutral Adelaide Action Plan 2016-2020
- Resilient East Climate Change Adaptation Partnership



Resilient East Councils

Climate Ready City Resilient East

Goal: To improve the resilience of communities, assets and infrastructure, local economies and natural environments to cope with the challenges and opportunities of climate change.

Formed in 2014, the collaboration has delivered:

- Climate Projections & Integrated Vulnerability Assessment Reports (2015)
- Regional Climate Change Adaptation Plan (2016)
- Collaborative Heat Mapping for Eastern and Northern Adelaide Report and online heat mapping tool (2018)
- Canopy and Green Cover Mission and Strategies and Water Sensitive Urban Design (WSUD) Mission and Strategies (2018 & 2019)
- Red Cross Climate Ready Communities Training (2019)
- Submissions on the Planning Reforms and Landscape legislation (2018-2020)

Agreed priority action areas for 2020/21 that align with Council's resolution include supporting on-ground action and State Government advocacy to:

- Increase regional green cover
- Increase WSUD in infill development
- Improve community resilience.









To assist our community to be heat prepared and understand the value of urban greening, we have delivered the following capacity and knowledge building programs.

- North Terrace Tree Trail
- Feeling Hot, Hot, Hot! community event
- Urban Microclimate Citizen Science Study
- Business Sector Preparedness event
- On-line education and engagement campaign
- Red Cross Climate Ready Communities Training
- Beat the Heat Campaign and Workshops
- · Community Resilience Leader's Training.



Urban Microclimate Citizen Science Study

- Over 90 community participants.
- Used heat sensor technology to measure heat in the urban environment.
- Provided data for use in a Urban Microclimate Project run by Royal Melbourne Institute of Technology and the University of New South Wales.

Risky Business, Managing the Unexpected Workshop

- Business continuity training session on the impacts of climate change, in particular extreme heat.
- Ideas on how to prepare and adapt.
- 50 attendees.





Supporting Community Resilience

Community Resilience Leader Training

- 20 volunteers trained over 10 week course.
- Training aimed to support community to prepare for, respond to, and recover from emergencies, and take positive steps to adapt to the changing climate.
- Incorporated leadership, community engagement, and specialised knowledge in emergency management, psychological first-aid and climate change adaptation.

North Terrace Tree Trail and Tree Tags

- The North Terrace Tree Trail was a partnership with the Art Gallery of SA and SA Museum to raise awareness about the benefits of street trees.
- Over 100 trees were tagged, with easy to understand facts and information about the benefits of trees.
- The event attracted 1,300 people.
- Building on this event, tree tags have been rolled out in Hindmarsh Square, Rymill Park, South Terrace Glover Playspace and Gilles Street Primary School to coincide with city festivals or local events.

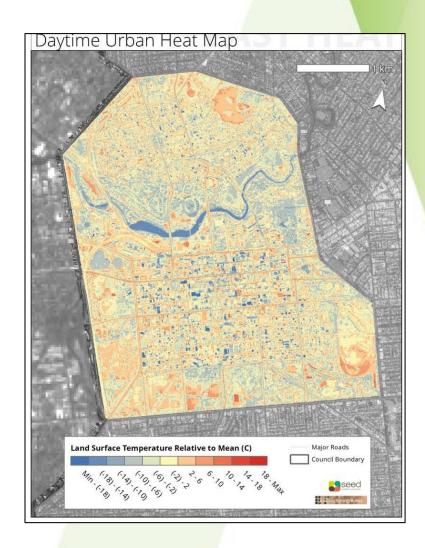




Urban Heat - Research Findings

Collaborative Heat Mapping for Eastern and Northern Adelaide Project – Key Findings

- Artificial turf is the hottest day time surface, at 10°C above the average surface temperature.
- Asphalt roads are 4°C hotter than the average day surface, bank heat and release it at night. Roads are the hottest nighttime surface.
- Trees are the second coolest day surface, at 6°C below the average.
- Irrigated grass is 9°C cooler than non-irrigated dry grass, during the day.
- Water bodies are the coolest daytime surface.



Climate Ready City

On Ground Action - Tackling Urban Heat (materials)

Natural vs Synthetic Turf

- Heat Mapping Study demonstrated synthetic turf is the hottest daytime surface.
- Council voted to ban artificial turf on verges (September 2019).
- Natural grass vs Synthetic Surfaces for recreation and Sports: An evidence review (CoA hosted University of Adelaide PhD Intern, December 2019).

Asphalt Roads

- Roads, footpaths and buildings absorb more heat from the sun making the city hotter - Urban Heat Island Effect.
- Heat Mapping Study demonstrated asphalt roads are 4°C hotter than the average day surface, bank heat, release it at night and are the hottest night-time surface.
- The Cool Road Adelaide project is a partnership with Climate-KIC and Department for Environment and Water.
 - It is testing the heat reflective properties of three cool road products on Bowen Street West.
 - Community responses to different surfaces and quality of road preservation are being considered.
 - Results are due in August 2020.





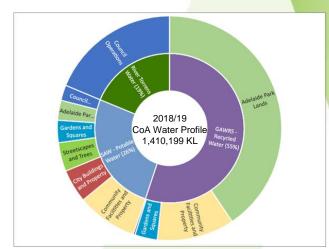
Climate Ready City On Ground Action – Water Resilience

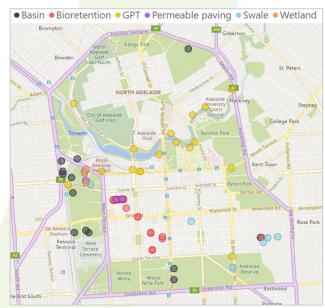
Water Profile, Smart Technology and Data

- The CoA Water profile provides annual intelligence on what type, how much and where we use water across the city. This informs decision-making on opportunities to improve water efficiency, water security and costs savings (e.g. over \$100k has been identified and recovered from SA Water due to incorrect billing and tariffs).
- Enables analysis of trends since 2014 (eg recycled water ratio or impact of rainfall changes on open space irrigation water budget).
- 41 smart water meters installed in 2019/20 providing real-time data at public facilities and commercial tenancies to better measure water use and detect leaks.

Water Sensitive Urban Design (WSUD) mapping

- WSUD is about installing features within the urban environment that capture, treat and use our water resources effectively and efficiently.
- WSUD can be used to manage rainwater, stormwater, groundwater, wastewater and mains water.
- CoA has over 60 WSUD features including rainwater tanks, detention basins, bioretention raingardens, gross pollutant traps, permeable paving, swales and wetlands.
- These have now been captured in our GIS system.





Climate Ready City

On Ground Action – Water Resilience

WSUD Raingardens

- Heat Mapping Study found bio-retention raingardens are 3.5°C cooler than bare verges on the same street.
- Plants and water retention lead to localised cooling.
- Two bio-retention raingardens installed (cnr Gray St & Waymouth St) as part of the 'Turning Gray St Green' Project.
- Monetised benefits analysis of the two bio-retention raingardens found \$100K of services for \$47K investment.

WSUD Wetlands

Benefits include:

- stormwater and flooding management
- pollution removal
- cooling of surrounding area
- improved amenity
- increased greening (with further cooling from evapo-transpiration and shading).

Existing city wetlands:

- First Creek, Botanic Gardens
- New Royal Adelaide Hospital
- Park 25 next to SACA building.

New wetland is being progressed in Victoria Park (Park 16) as part of the Brown Hill and Keswick Creek Stormwater Management project.





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On Ground Action – Water Resilience

WSUD – Recycled Wastewater in Park Lands

- 54% water used by CoA is from the Glenelg to Adelaide Recycled Wastewater Scheme (GAP).
- This comprises ~80% of CoA irrigated water and toilet flushing water at Victoria Square, Victoria Park and Rundle Park.
- The Event Infrastructure Project at Rundle and Rymill Parks includes expanding access to recycled water for events to flush toilets, water by hand, suppress dust and restore the parks with recycled water instead of drinking water.
- CoA is working closely with the SA Health and SA Water to ensure this future-proofing project is successful.



Expanded Recycled Water Access Site Map for Event Infrastructure Project at Rundle and Rymill Parks

Climate Ready City On Ground Action – Water Resilience

Water Sensitive City

- A Water Sensitive City is a liveable, climate ready city which uses a diverse range of fit for purpose water resources (such as use of GAP recycled water in the Park Lands) and infrastructure such as Water Sensitive Urban Design (WSUD) to meet strategic objectives and community expectations.
- To identify additional water resilience opportunities and deliver on the Strategic Plan's priority to lead the way in managing water and to be water sensitive, a Water Sensitive City Action Plan is currently being developed.
- Development of the draft Plan has involved a series of internal capacity building activities across the organisation.
- Key action areas in the draft Plan include:
 - Water for Greening
 - Water Smarts
 - Wetlands and Waterways
- Once finalised the draft Plan will be presented to Council for endorsement.

Water Sensitive City Transition Plan 20-24



Water for Green



Water Smarts



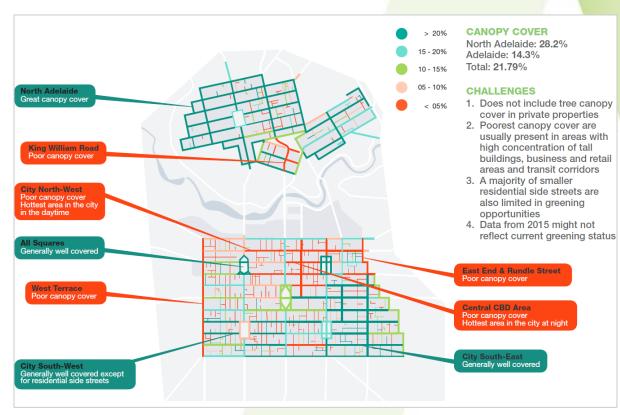
Wetlands and Waterways

Climate Ready City Greening Targets

- The western and northern CBD are the hottest parts of the City. They have greater amounts of hard surfaces, lower levels of canopy cover and vegetation and more vehicle traffic.
- The Heat Mapping Study found that roads with more tree canopy cover can be 9.5°C cooler than roads with no tree canopy.
- CoA is committed to equitably increasing greening across the city.

CoA Greening Targets:

- Plant 1,500 street trees by June 2020.
- Increase street canopy cover in the CBD to 25% (currently 14.3%).
- Increase street canopy cover in North Adelaide to 40% by 2040 (currently 28.2%).
- Increase street canopy cover to 20% by 2021 in the CBD's north-west and south-west (currently 9.21% and 18.79% respectively).



Climate Ready City Greening Challenges

The City is a contested landscape, both above and below ground, because of services (electricity, sewers, telecommunications), onstreet parking, vehicle crossovers, footpath widths and accessibility.

Cost implications:

- Consequently, greening in the city is more expensive than in low density suburban areas and CoA has had little success in attracting grant funding based on 'cost per tree' criteria.
- CoA has recently been successful in advocating to the State
 Government to consider additional metrics and Green
 Adelaide's 'Greener Neighbourhoods Grants' Program
 (providing up to \$1M in 2020/21) now includes additional
 metrics such as % increase in canopy cover, urban heat impact,
 change in number of trees, and visitation to the project area.

Design implications:

Where no other options exist (and traffic designs allow) the CoA is planting within roadways, whilst maintaining access to properties, footpath space and parking (e.g. Little Sturt St in south-west corner of city).





On Ground Action – Greening

Looking after street tree assets

- To ensure the long term health and survival of our street tree assets CoA has been installing plastic structural support cells, permeable borders, tree guards and stormwater watering inlets.
- Tree pits and guards such as those in Waymouth St allow deep watering, protect the trees, maintain footpaths and facilitate outdoor dining.





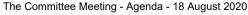
Climate Ready City

On Ground Action – Greening Alternatives

Where street trees are not viable, green infrastructure such as green walls (e.g. Colonel Light Centre), planter boxes, green arbours and green screens can provide an innovative greening solution.

- There are 85 tree planter boxes across the CBD.
- A green arbour and 13 mature trees were installed as part of the Gawler Place upgrade.
- The 'Turning Gray St Green' Project will include vine covered "green screens", seven street trees with stormwater inlets, two bioretention raingardens and three garden beds in order to mitigate the hot spots and provide amenity.











Climate Ready City **Future Options – Urban Heat Preparedness**

Climate Ready Community

- Assist our organisation, community and business to be climate ready and prepared for the impacts of climate change, in particular extreme heat. Deliver capacity building initiatives including:
 - Business webinar/workshop (focus on business continuity and preparing for the impacts of extreme weather events)
 - Rundle Mall Summer Preparedness program
 - Red Cross Climate Ready Communities Training
 - Heat preparedness training for CoA staff
 - Community Resilience Leader's Training.
- Collaborate with local and State government and other organisations to prepare our community for the impacts of heat waves (e.g. Resilient East, Red Cross Australia, SA Health, Department for Environment and Water, Grey-headed Flying-fox Task Force).

Cool Materials

- Use the results of the Cool Road Trial to inform future decisions regarding the use of cool materials for roads.
- Investigate the use of cool materials for footpaths, roofs, building materials, street furniture, etc. (e.g. cool roof technology can cool a roof surface by up to 30°C).
- Investigate the installation of raingardens, garden beds or a light coloured crushed, permeable gravel in footpaths as part of asset renewals to better cool streets.
- Ensure that Asset Management Plans consider climate change impacts on assets (e.g. the impacts of climate change, such as extreme heat, on the useful life of assets).

Climate Ready City Future Options – Urban Heat

Water for cooling

- Consider the introduction of WSUD within the public realm and new urban designs to deliver localised cooling.
- Consider the use of water misters to support minimising the impacts of extreme heat at locations when events are held in hot summer months (e.g. Rundle Mall, Park Lands).
- Support the use of water misters and increased watering to minimise the impact of extreme heat on nature in the city (i.e. Grey Headed Flying Foxes in Botanic Park).
- Partner with organisations including the University of Adelaide, SA Water and Resilient East to investigate water for cooling and monitor WSUD elements to ensure our investments are protected and optimised (i.e. street tree assets).
- Continue to seek State Government funding for WSUD projects.



Climate Ready City **Future Options – Water Sensitive**

Water for Greening - Increase WSUD to enable street trees and gardens to thrive

- Consider increasing the installation of WSUD elements as part of asset management planning for roads and footpaths.
- Consider installing innovative WSUD elements such as subsurface porous water storage systems which take water from streets or private land and direct it straight to street trees (e.g. kerb inlets linked to porous wells, B-pods and larger trenches in parks or squares).
- Consider the use of permeable paving on footpaths near street trees when undertaking asset renewals to benefit trees and reduce root damage to pavers.
- Continue to seek State Government co-funding for WSUD and urban greening projects.



Raingarden



B-Pod (small porous trench)



Kerb Inlet + Porous Well



Permeable Paving

Climate Ready City Future Options – Water Sensitive

Water Smarts

- Continue to develop an annual water profile for the city (through collection and analysis of data) to identify opportunities to improve water efficiency, water security and cost recovery and savings.
- Identify opportunities for the use of alternative, fit-for-purpose water sources and new technologies to achieve water sustainability, water security outcomes and cost reduction (i.e. use of rainwater tanks, GAP water for events in the Park Lands and in CoA buildings and facilities).
- Continue to install smart water meters where appropriate.

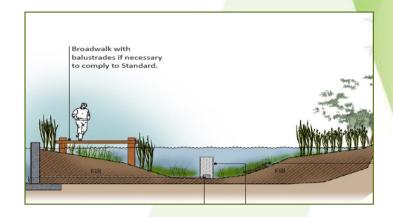


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Climate Ready City Future Options – Water Sensitive

Water for Wetlands and Waterways - Increase wetlands in the City

- Consider increasing the use of wetlands in the Park Lands to improve stormwater capture and water quality outcomes (e.g. reduce blue green algae outbreaks in Torrens Lake) as well as mitigate the risk of stormwater flooding.
- Progress feasibility assessment and design work for River Torrens Karrawirra Pari Wetlands and Urban Nature Space and advocate for funding from State Government to construct wetlands.
- Consider the development of a community engagement initiative to raise awareness of the importance of wetlands and riparian environments. This could include an interpretive trail and community events in the Park Lands.





On Ground Action – Future Options Greening

Increasing greening in city hot spots

- Develop a 30 year Urban Forest Strategy to deliver a strategic approach to street tree planting which prioritises greening in city hotspots, pedestrian corridors and equity in greening.
- Consider piloting alternative green infrastructure options such as green roofs, walls, arbours, screens and green infrastructure technologies that provide cooling and shade.
- Deliver community greening initiatives to enable our community to take part in city greening and contribute to greening targets. This could include community planting opportunities, volunteering (e.g. Bush For Life) and greening of verges.
- Continue to partner with and to seek funding from State and Federal Government (e.g. Green Adelaide) to assist in delivering greening objectives.
- Continue partnerships across local and State government and the tertiary sector (e.g. Resilient East and University of Adelaide) to inform climate resilient species selection (plants and trees) and monitoring.





Climate Ready City Key Questions

KEY QUESTION

What are Council Members' views on the proposed climate ready initiatives to tackle **urban heat**?

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What are Council Members' views on the proposed climate ready initiatives to improve water resilience?

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What are Council Members' views on the proposed climate ready initiatives to increase greening?