



CTBUH Research Paper

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Title: Preparing Adelaide for the Next Crisis

Author: Sandy Verschoor, Lord Mayor, City of Adelaide

Subjects: COVID
Social Issues
Sustainability/Green/Energy
Urban Design

Keywords: Climate Change
COVID-19
Heat Mapping
Sustainability

Publication Date: 2020

Original Publication: CTBUH Journal 2020 Issue IV

Paper Type:

1. Book chapter/Part chapter
2. **Journal paper**
3. Conference proceeding
4. Unpublished conference paper
5. Magazine article
6. Unpublished

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Preparing Adelaide for the Next Crisis



Sandy Verschoor

Cities across the world are grappling with multiple crises at once, with the COVID-19 pandemic and climate change affecting virtually every place on earth. In response to the record temperatures that have scorched Adelaide, Australia, Lord Mayor Sandy Verschoor has implemented the Heat Mapping and “Feeling Hot! Hot! Hot!” campaigns, to protect the health and well-being of the community by preparing for extreme heat, as well as numerous other programs, including building green infrastructure throughout the city. Daniel Safarik interviewed Verschoor for Talking Tall.

Interviewee

Sandy Verschoor, Lord Mayor
City of Adelaide
1st Floor, 25 Pirie Street
Adelaide, South Australia 5000
Australia
t: +61 08 8203 7252
f: +61 88 203 7575
e: lordmayor@cityofadelaide.com.au
cityofadelaide.com.au

Sandy Verschoor was elected as an Area Councillor in the 2015 by-election and served as Deputy Lord Mayor from June 2017 to November 2018. She has had a career in both the public and private enterprise, not-for-profits, and Local and State government, including three years as General Manager City Culture and Community Services for the City of Adelaide. Verschoor has contributed to the success of Adelaide’s thriving arts and culture community for more than two decades, including having been CEO of the Adelaide Fringe and the Adelaide Festival, as well as producer of the Adelaide Festival of Ideas in 2018.

The theme of the 2020 CTBUH conference is “The Post-Crisis City.” This was inspired by the immediate circumstances of COVID-19, but also refers to the ongoing crises of inequality and climate change. What has this period of incredible adversity changed or affirmed about your view of the role of government in forging a sustainable quality of life for citizens?

From settlement, Colonel William Light’s City of Adelaide (CoA) town plan layout incorporated park lands surrounding the city center, sited astride a river, with town squares conveniently placed (see Figure 1). This has stood the test of time and has provided some 760 hectares of green space and recreation

opportunities during both the COVID-19 pandemic times, as well as during heat events, for residents of the city businesses and visitors to our city.

The COVID pandemic highlighted that difficulty in keeping people who don’t have a place to isolate or social distance safe when such requirements are placed on the community. The South Australia (SA) Government worked quickly to provide a solution, although temporary, to get people off the streets promptly and into Government-funded motel accommodation. In addition, intensive social support was provided by non-government homelessness services to keep people safe in motels and to establish pathways into permanent secure housing.

The City of Adelaide works with the state government to support collaborative responses to people who are homeless or vulnerable during times of crisis or extreme weather. The state government also coordinates the response to extreme weather, through a “Code Red” and “Code Blue” program. Using weather predictions and advice from the State Emergency Service, a collaborative response between housing, homelessness and health services is activated when extreme heat, or extreme cold or other weather conditions affect the health and safety of people who are unable to shelter or find respite.

This response involves extended operating hours of homelessness services, overnight shelter and increased outreach capacity. The City of Adelaide encourages people needing respite to use our community spaces such as libraries and community centers.



Figure 1. Central Adelaide. © Douglas Barber (cc by-sa)

Tell us a bit about what the Heat Mapping initiative is, and how it came to be enacted?

Resilient East is a partnership between the Campbelltown City Council, the cities of Adelaide, Burnside, Norwood Payneham & St Peters, Prospect, Tea Tree Gully, Unley, and the Town of Walkerville. The goal of Resilient East is to improve the resilience of our communities, infrastructure, local economies and natural environment so they can be climate ready and cope with the impacts and challenges of climate change.

In 2018 Resilient East partnered with the City of Salisbury to commission the Collaborative Heat Mapping for Eastern and Northern Adelaide Project, which resulted in a report of findings and the heat mapping data (see Figure 2). Resilient East then collaborated with the Department of Environment and Water (DEW) to host an urban heat mapping viewer via the DEW website for the heat mapping data.

Resilient East launched the online heat maps produced through the Collaborative Heat Mapping for Eastern and Northern Adelaide Project on 6 February 2019. Heat maps from all metropolitan Adelaide adaptation regions have been added to the heat map viewer to allow for more informed decisions relating to heat and urban planning, tree plantings and the health and well-being of the community.

It will soon include canopy mapping as well, another collaborative data collection and analysis effort made by local and state government.

With the data that are becoming available on infections, hospitalizations, etc., are there opportunities to blend the efforts of the Heat Mapping project with COVID information?

The Urban Heat Mapping Viewer can have other layers added (i.e., there is likely to be canopy mapping for all Metropolitan Adelaide added). The heat mapping study included analysis of 125-meter-square hotspots and their association with a social vulnerability index, which came from census data, which is gathered once every five years.

At this point, it is unlikely this will be blended to include live health data. The heat mapping and canopy mapping is good for a planning tool and to see changes over time, but it is not live data. Combining the historical heat mapping with current COVID-19 cases is not currently on the agenda, but as we move into summer months it may be worth monitoring.

What are some of the outcomes from the research partnership with the University of Adelaide that you have undertaken, regarding urban heat and solutions?

To date the City of Adelaide has partnered with the University of Adelaide (UoA) in a number of ways. CoA has provided a once-yearly guest lecturer to the School of Architecture and Built Environment for a number of years. CoA presented at the University's Heat & Habitats in Cities Symposium, December 2019. The UoA provided a lecturer for the CoA community hands on event "Beat the Heat – What's Hot and What's Not," November 2019. The UoA School of Architecture and Built Environment provided assistance and equipment to our launch of the Cool Road Adelaide project, and the UoA conducted a Pop-Up Climate Refuge student research project in consultation with CoA staff as a design and prototype for a resource that could be useful in public places and events in our hot summers.

What role do you see the built environment (construction) industry having in helping cities mitigate climate change? Can you point to any new regulations or initiatives that might have emerged from the Heat Mapping exercise which pertain to materials, surfaces, shading, building massing, etc.?

The built environment (construction) industry has a large role to play in mitigating climate change, given the construction and operation of buildings can lead to significant carbon emissions (e.g., concrete manufacture and heating and cooling buildings). This industry can also contribute to adapting to climate change, particularly in our built-up cities. Reduced summer air temperatures will in turn reduce energy demands on building cooling, thus further driving down carbon emissions. For example, in urban environments, in

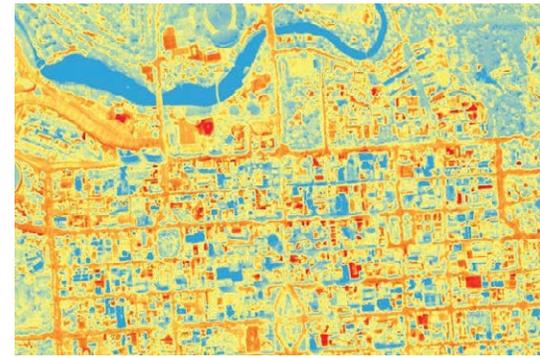


Figure 2. Adelaide heat map in March 2018. © City of Adelaide

temperature ranges greater than about 22°C, each 1°C increase in temperature increases electricity demand by 2.6 percent.

As mentioned, the City of Adelaide has, as a result of the heat mapping study, banned artificial turf on verges and trialed heat-reflecting road sealants through Cool Road Adelaide. We will continue to find ways to trial the use of heat reflecting, shading and water cooling for our built assets and community spaces.

Your peer cities such as Sydney have permitted and encouraged construction of tall buildings that are well-supported by public transport and in some cases, covered in vertical greenery, which helps with the urban heat island condition. Are there such projects, incentives or initiatives in Adelaide?

Our state government oversees a majority of CBD-based public transport such as trains, trams and buses. The City of Adelaide oversees the free City Connector bus, which provides a city loop. These provide transport and access throughout the city.

We provided 50 percent funding for more than 30 city residents and businesses, a total of AU\$135,000 (US\$97,724), leveraging projects worth AU\$270,000 (US\$195,449), between 2016 and 2020, through the Green City Grant Program, to establish green screens, window boxes and green walls.

The City of Adelaide has installed a green wall on our Pirie Street office building and recently

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installed a green arbor in Gawler Place as a community amenity within the Rundle Mall precinct, which also has many trees. There are more and more private green walls being developed across the city, including the largest green wall in Australia at Unilodge Gray Street.

Our city balances taller buildings with the retention and restoration of heritage buildings, which provide tangible links to our history and achievements of our community over time. The economic impacts of COVID might mean the business case for tall buildings has been reduced in the short term, in terms of future occupancy and returns on investment, but any tall buildings in the city also benefit from views of the Adelaide Hills wine region, the beaches along the coast, and the ring of Park Lands which surround the city.

The City of Adelaide provides unique habitat for wildlife, trees and riverine species within its parks and river. The city and park lands contains a zoo, a botanic garden, various museums, AFL football stadium, and golf course, all within a 20-to-30-minute walk of the Adelaide Town Hall. The Adelaide park lands circle the city and provide green spaces for activity, rest, and recreation.

What is the building application review process like in Adelaide? Are there discretionary design reviews, by-rights development, etc.?

The Adelaide (City) Development Plan comprises statutory development policy used by planning authorities to make planning assessment decisions.

The Development Act of 1993 requires that changes to the Development Plan promote the 30-Year Plan for Greater Adelaide, such that progressively, the Development Plan will be increasingly aligned to the 30-Year Plan for Greater Adelaide.

Developments with a value over AU\$10 million (US\$7.2 million) are assessed by the state government's State Commission Assessment Panel (SCAP). Any development with a value of over AU\$10 million in the City of Adelaide is referred to the Government Architect – Office for Design and Architecture South Australia (ODASA), where a panel of built environment experts review the design quality of a development proposal to promote and support good design.

There is no “by-rights development” for high-rise buildings in the City of Adelaide. If an applicant proposed a development that exceeded the maximum building height stipulated in the Development Plan, it would need to positively respond to the desired character of the locality and meet certain other provisions. One of those is that taller developments may be acceptable if it “is designed to provide measures that provide for a substantial additional gain in sustainability.”

What is the Mayor's Office stance on high-rises—how tall should they be, where should they be located, and what are the design and environmental standards, etc.?

Potential heights of taller buildings in our city are somewhat constrained by both planning rules, and also the effective heights that are possible taking into account air safety

protocols for the operation of the nearby international airport, conveniently located a few kilometers from the city center.

The incorporation of sustainability and climate responsiveness into building design is a key opportunity for all new buildings, regardless of height, which will assist with climate mitigation into the future, along with initiatives at the street and park level. This is a key opportunity for the City of Adelaide to attract and retain a vibrant, healthy and innovative population well into the 21st century. The City of Adelaide's “Spatial Vision 2014” expresses the desired land use, built form, and movement outcomes envisaged for the city over the next 10 to 30 years. The vision outlines a spatial framework within which placemaking and planning for the City's many places can occur.

Tall buildings are envisaged in the central activity area, which is the pre-eminent economic, governance and cultural hub for South Australia, supported by educational, hospitality and entertainment activities and residential, student and tourist accommodation. Concentrations of the tallest high-rise buildings exhibiting stylish and evocative architecture characterize the area. There are high levels of pedestrian activity. Heritage buildings linking to the past are adapted for modern use.

Sustainability policy would advocate for the priority to be the most environmentally-friendly building (i.e. minimal carbon emissions, water use, landfill waste and urban heat created as a result of construction and use), over height. ■