

# Climate Mitigation and Adaptation Strategy 2023 - 2027

Our pathway for reducing emissions and adapting to our changing climate

February 2023



# CITY OF WEST TORRENS

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**Production acknowledgment**

This document was produced by the City of West Torrens, with assistance from members of the West Torrens community who contributed during public consultation.

**Kaurna Acknowledgement**

The City of West Torrens is located on the Traditional Homelands of the Kaurna Nation of People, the first Traditional Owners and Custodians of the Adelaide Region.

It is important to recognise that, while colonisation has resulted in the dispossession and dislocation of the Kaurna Meyunna, their Spiritual, Cultural Heritage and relationship with their Country is enduring. Kaurna's Connection and obligation to their Ancestral Lands the (Yarta) is still as important to the living Kaurna people today. The Kaurna people have lived on their lands for more than 50,000 years and developed strong and enduring spiritual, social, economic and governance systems that are still relevant for Aboriginal Title and are recognised within the 1836 Letters Patent.

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## Document history

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1.0	August 2022	Draft for consultation
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## Message from the Mayor

Our changing climate is one of the most important emerging issue for all of us - our communities, economic sectors and, of course, governments. On a local level, climate change poses many issues for councils as it challenges infrastructure, services, economy, environment and lifestyles of our varied communities.

The City of West Torrens is leading by example by providing support to our community, protecting our environment, mitigating and adapting to our changing climate and in doing so, helping to build resilience to address the impact of current and future events.

We recognise that we play an important role in planning for, and responding to, a changing climate.

A significant amount of work has already been undertaken to understand our vulnerability to the changing climate. We are developing tools and information to assist in decision making and ongoing management. Valuable work has included urban heat mapping to identify hot spots, sustainability initiatives within Council and for our community, as well as collaboration with other agencies and community-based organisations. We have also partnered with neighbouring councils in the regional climate change adaptation planning project 'AdaptWest' and the Western Zone Emergency Management Committee, which both aim to address issues associated with a changing climate in our western suburbs.

This Climate Mitigation and Adaptation Strategy is Council's response to the challenges we face as a community with climate change. It has been developed to provide us with direction so we can prepare for, mitigate and adapt to the effects of a changing climate and to report on progress. Importantly, it also sets out a framework for us to continue our work on mitigation (reducing greenhouse gas emissions) and adaptation measures (being able to adapt to the effects of a changing climate as they occur).

Your Council is committed to the implementation of this Strategy in order to address the impacts of climate change on our community.



Michael S. Coxon

Mayor, City of West Torrens



## Introduction

Scientific evidence shows that our world is rapidly heating. This is due to the excessive amount of greenhouse gases entering the Earth's atmosphere from human activity.

While the earth's climate has changed throughout history, recent warming is happening at a rate much faster than previous climatic changes. Average global temperature has risen by 1.1°C since before the Industrial Revolution, and although this does not sound like a lot, that represents a massive amount of extra heat and energy.

The impacts of climate change are mounting much faster than estimated a few years ago and so the time for action is now.

The Intergovernmental Panel on Climate Change (IPCC) warns of the dire consequences we face if we fail to limit the global temperature increase to 1.5°C. The types of impacts arising from increasing global temperature are outlined in this infographic:

Climate change projections of Australia's future climate are delivered at a national level through the *Climate Change in Australia* website. Specific climate projections for South Australia are delivered by the [Government of South Australia](#) through the [SA Climate Ready](#) initiative. These sources of information also provide information on risk assessments based on a range of climate scenarios.

The outlook for South Australia is increased temperatures and more frequent extreme weather (including heatwaves, floods and storms) and these will impact the built and natural environments and communities.

Vulnerable members of the community are particularly susceptible, such as low-income households, elderly, the very young, those with underlying health conditions and those in remote or vulnerable coastal communities.



## Shared responsibility

Mitigating greenhouse gas emissions and building our capacity to adapt to our changing climate is a shared responsibility and governments at all levels, businesses, communities and individuals have important roles to play.

According to the IPCC, the impacts of climate change are mounting much faster than estimated a few years and so the time for action is now. Governments and organisations around the world are ramping up their approaches to addressing greenhouse gas emissions and adaption strategies.

## Purpose of this Strategy

This *Climate Mitigation and Adaptation Strategy 2023-2027* (Strategy) is the City of West Torrens' framework to both *mitigate* and *adapt* to our changing climate. Responsibilities for implementation will be shared across the organisation and these will also complement the work already undertaken, and the collaboration we have with others across the region, such as the western region of council's climate adaptation program 'AdaptWest' and the Western Adelaide Emergency Management Committee. In doing so, this Strategy will support those efforts and identify local opportunities that we as a Council may be able to influence.

This Strategy primarily focuses on Council's own facilities and operations, while also supporting the community to take action.

## Development of the Strategy

Council regularly receives feedback and ideas from the community on what matters most to them and how well we are providing services. This has been a source of valuable information for preparing this Strategy. For example, surveys completed by the community repeatedly identified the changing climate and adaptation should be a high priority for Council. The community recognises climate change as a risk to the future liveability of our community and for future generations; they are keen to see more work undertaken to address these issues, such as mitigating and/or adapting to increased urban heat.

Development of this Strategy responds to this feedback, as well as building on the work and initiatives undertaken so far, and is guided by the vision of the State Government, adjacent councils and key stakeholder bodies.

The process of developing this Strategy involved the following key phases, as outlined below:





## Strategic alignment

This Strategy sits under our overarching strategic document; the Community Plan 2030.

The Community Plan reflects our community's vision for 'West Torrens - committed to being the best place to live, work and enjoy life'. It presents our support for community health and well-being through community cohesion and connections and our commitment to protect and conserve the natural environment. It proposes strategic objectives and identifies trends and opportunities to guide the operations, investment and decisions of Council.

During consultation on our Community Plan, it was clear that the community think tackling climate change is an important role for Council.

This Strategy responds to that community feedback as well as supporting key focus areas and strategic objectives within the Community Plan:

### Environment and sustainability -

*Focus:* We protect and conserve the natural environment, reuse and recycle resources, support biodiversity and respond to climate change. *Strategic objective:* Prepare for and respond to the challenges of a changing climate.

### Built environment -

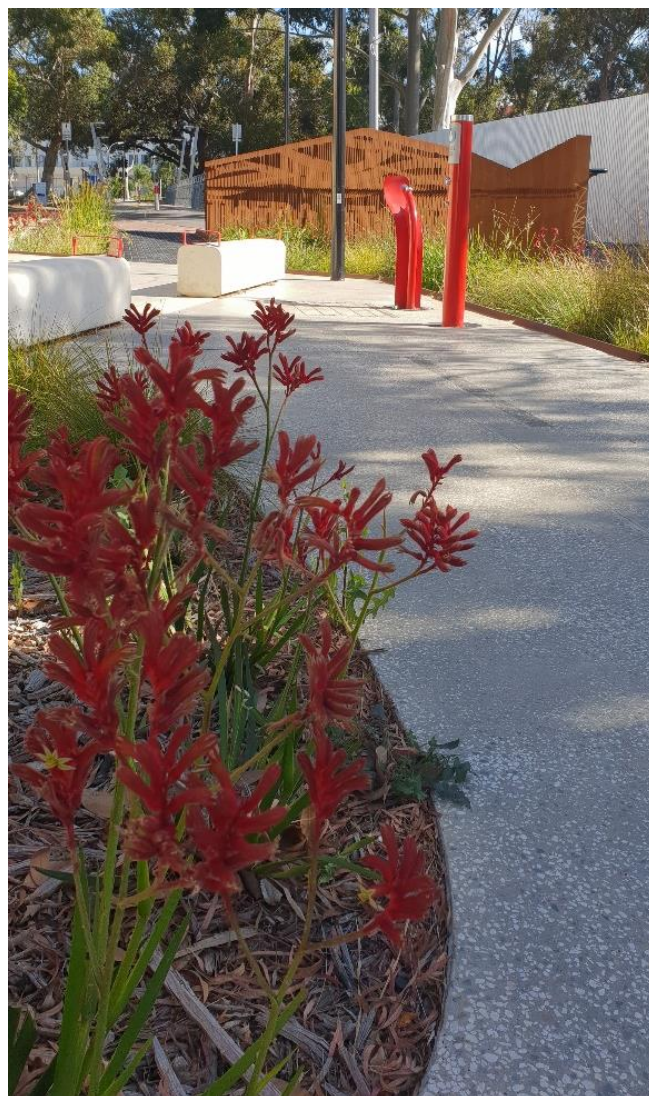
*Focus:* We ensure housing, urban development and infrastructure contribute to attractive and safe neighbourhoods, and how we travel in and beyond our area. *Strategic objective:* Infrastructure that meets the needs of a changing city and climate.

### Community life -

*Focus:* We support diversity, health and well-being, community cohesion and connections, and create opportunities to learn and enjoy the local area. *Strategic objective:* A resilient community through community involvement, social connections and life-long learning; facilitation of community health, wellbeing and safety.

### Prosperity -

*Focus:* We support jobs, businesses and industries to generate local economic growth and activity. *Strategic objective:* A diverse, resilient and competitive economy, including small business, tourism and export sectors.



## **Linkages with Council plans and strategies -**

The Strategy has linkages and supports other Council plans and partnerships:

**AdaptWest Climate Change Adaptation Plan** - developed collaboratively by the Cities of West Torrens, Port Adelaide Enfield and Charles Sturt, this Plan provides a regional response for climate adaptation.

**'Global Covenant of Mayors for Climate and Energy'** - West Torrens is a member of this group which comprises leaders across the world in raising awareness of, and addressing, climate change issues.

**Adelaide National Park City** - Council recently signed the Adelaide Charter to join the campaign to make Adelaide the next 'National Park City' which aims to raise awareness of the benefits of connecting people to nature, and by doing so enhance the liveability of the greater Adelaide region.

**Cities with Nature** - Council joined the Cities with Nature program, an international online platform aimed at sharing information on the benefits of nature in cities and initiatives to enhance nature.

**Urban heat mapping** - a mapping tool that displays urban heat and 'hot spots' which can be used to inform strategies aimed at cooling and greening our city.

**Water Management Action Plan** - guides Council's water management activities with the aim of improving our sustainability performance.

**Waste Strategy** - *currently in development* - Council is currently developing its Waste Strategy which will highlight the importance of a circular economy, thus supporting the objectives of this Climate Mitigation and Adaptation Strategy.

**Community Needs Analysis (2020)** - community feedback on emerging issues, opportunities and directions for Council to consider when developing or reviewing its plans and strategies.

**Public Health Plan** - sets the framework to assist health providers and partners in supporting a healthy and inclusive community.

**Disability Access and Inclusion Plan** - facilitates opportunities for people with disability to fully participate in all aspects of society, such as by improving access to programs, services and facilities.

**Asset Management Plans** - Council's suite of Asset Management Plans.

**Tree Strategy** - provides a framework for the ongoing management of trees in streets and parks.

**Open Space Plan** - highlights the importance of creating a greener and cooler movement network.

**Design guidelines for 'Street Trees in Challenging Spaces'** - a collation of best practice approaches for planning and planting street trees in confined spaces.

**Public Realm Design Manual** - provides direction for high quality, recognisable and environmentally sustainable streetscapes that support integrated, safe and appealing neighbourhoods.

**Strategic risk register** - Council's register of risks includes issues associated with climate change.

**Western Adelaide Zone Emergency Management Framework** - includes actions for each Council within the region and the State government to mitigate the effects of climate change such as increased storm events, inundation, coastal erosion, and heatwaves.

## **Linkages with State Government -**

This Strategy sits within the following State Government framework:

**South Australian Government Climate Change Action Plan 2021-2025** - goal to reduce greenhouse gas emissions by more than 50% by 2030 and achieving net zero emissions by 2050.

**SA's 30 Year Plan for Greater Adelaide** - sets out targets for greening neighbourhoods, among other objectives.

**SA's Planning and Design Code** - provides a consolidated set of rules for urban development in South Australia, replacing Development Plans of individual councils.

**SA's Electric Vehicle Action Plan** - the State Government aims to facilitate the transition to EVs, including charging stations.

**Green Adelaide** - aims to create 'Green streets and flourishing parklands' and is currently preparing a Green Strategy for Adelaide.

**Urban Heat and Tree Canopy Mapping Viewer** - An online mapping tool showing urban heat, tree canopy and social vulnerability across the Adelaide region.

**Climate Change and Greenhouse Emissions Reduction Act 2007** - the SA Minister for Environment and Water prepares progress reports on the operation of the Act including information on South Australia's greenhouse gas emissions.

## **Environment Protection Act 1993**

**Western Adelaide Zone Emergency Management Committee** - provides oversight with regard to the identification and mitigation of risks by all three councils, SES, and other government agencies including those associated with climate change.

**Adelaide Coastal Councils Network** (formerly known as Metropolitan Seaside Councils Committee) - a collaboration of metropolitan coastal councils that advocate and facilitate improved coastal planning and management, including issues associated with climate change.



## Our city and community

West Torrens comprises 37 square kilometres of Adelaide's western metropolitan area and is situated between the Adelaide Central Business District and Gulf St Vincent. As a result, its location makes it a sought after place to live.

The region, its plants, animals and waterways, including the River Torrens (Karrawirra Pari) have continuing cultural and spiritual significance to Kaurna people. The river is not only a special place for Kaurna, but is also valued for its natural landscape appeal, biodiversity and open space and recreation activities.

West Torrens has a strong European heritage as it played a key role in the early days of the Colony of South Australia being established. Today approximately 30% of our community was born overseas, such as from India, United Kingdom, China, Greece, and Italy.

Around 61,000 residents live in West Torrens and the population is rising. The influx of people to our city means that the need for services and amenities are always changing and, as a result, a large portion of Council's annual budget is earmarked for upgrades and maintenance, as well as the development of new infrastructure and provision of services.

West Torrens is well-known for its shopping facilities including Harbour Town, Ikea, Brickworks Marketplace and Mile End Homemaker Centre. Adelaide Airport is a central part of our city and together with 5,000 individually owned businesses in the area provides considerable employment and economic opportunities.





## A changing climate in West Torrens

West Torrens is vulnerable to the effects of a changing climate such as hotter, drier conditions, with more heatwaves and intense rainfall events.

Heat affects our health, productivity and our economy. Even the smoke and haze from bushfires happening elsewhere can affect the health and wellbeing of our community. Vulnerable people such as the young, the elderly and those with health conditions are particularly at risk, especially with regards to health. Others may need to take time off from work, business hours and services may be interrupted, and the cost of living may rise as more energy and water is consumed.

Average rainfall is anticipated to decrease by up to 20%, while rainfall intensity will increase. Changing conditions will have an impact on the growth of our street and park trees. More extreme weather may result in flash flooding, which may see damage to properties, erosion and poor water quality, interruptions to transport, business trade and even loss of livelihoods.

These risks are exacerbated by the increase in infill development, which is resulting in more impervious surfaces and creating more runoff contributing to flash flooding and the creation of heat islands which amplify intense heatwave effects. These impacts can affect the community as well as Council's assets, operations and delivery of services.



## Council's achievements in adapting to a changing climate

Council recognises that climate change affects the way we plan, maintain, and manage our operations, assets and services delivered by our organisation. We are working to meet the aspirations of our community and contribute to the global effort on tackling climate change by reducing emissions, creating shady, green and cool suburbs, fostering a climate resilient and informed community, transitioning to a low carbon lifestyle and building assets and infrastructure that are climate ready. It is committed to continuing these efforts.

A dedicated Standing Committee has been established that meets every month to discuss and report upon climate change issues. Progress on implementing this Strategy will be provided to that committee.

Council has undertaken substantial work in climate mitigation and adaptation, such as the following examples:

- A partner council in the western region climate adaptation project called 'AdaptWest' with the Cities of Charles Sturt and Port Adelaide Enfield as well as State Government. This includes delivery of the AdaptWest Climate Change Adaptation Plan focusing on adaptation at a regional scale.
- The development of a risk management plan by Council's Western Zone Emergency Management Committee which identifies heat and storm inundation as hazards for mitigation and adaptation responses.
- Participation in the Metropolitan Seaside Councils Committee.
- On-going monitoring of emissions and water consumption.
- Tree planting to green and cool our neighbourhoods.
- Waste minimisation and recycling initiatives.
- Commenced the transition of our fleet to electric vehicles.
- Urban heat and tree canopy mapping across the West Torrens area to prioritise activities.
- Continual improvements to stormwater management and to reduce flood risk.
- Community engagement and awareness raising activities.
- Provision of community rebate programs and planting programs to encourage people to adopt environmentally friendly practices, such as rainwater tank rebates, native plant giveaways and community planting days.
- Ongoing collaboration and information sharing with other councils.

## Emissions profile in West Torrens

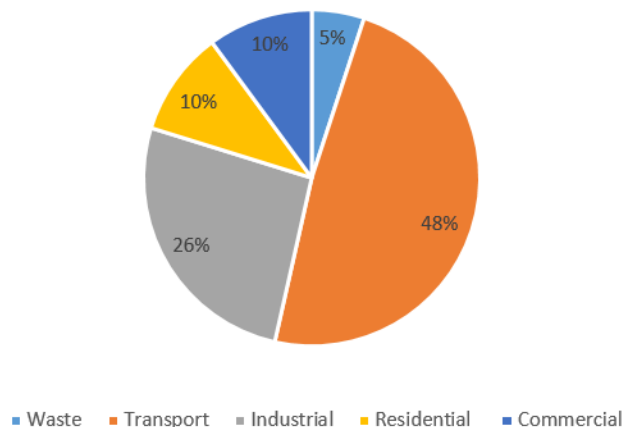
### Community emissions

The carbon footprint of the City of West Torrens' community is estimated to be more than 1.5 million tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e) per annum. Transport is by far the highest greenhouse gas emitter in West Torrens (48%) due to flights in and out of Adelaide Airport (pre-COVID-19). Aviation accounts for nearly half of the emissions associated with transport. The next highest sector is industry (26%), followed by commercial (10%), and residential (10%). Council's operational activities account for approximately 0.3% of the total emissions for the municipality.

The West Torrens' community emissions profile is presented in the adjacent diagram (as at 2019-20).

*Please note that this data was provided by Ironbark Sustainability's Snapshot Tool and was accurate as of January 2021. The data may be subject to minor changes as the data analysis techniques of this tool improve via the ongoing research and development.*

City of West Torrens Community Emissions Profile

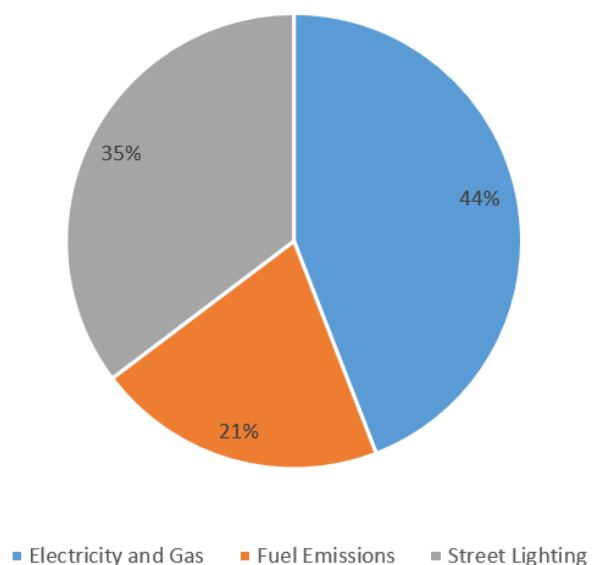


### Council corporate emissions

Council's activities generate more than 3,000 tCO<sub>2</sub>-e per annum. This equates to 0.3% of the overall emissions in the West Torrens area. Purchased electricity is the largest source of emissions (79%) and this includes energy used in street lighting, Council buildings, parks and Council's sporting facilities. Street lighting contributes to almost half of the city's electricity consumption. We have invested in LED street lighting which has enabled us to reduce energy consumption, reduce emissions and reduce our power costs. The remaining 21% of Council's emissions are generated by fuel combustion from our plant and fleet vehicles.

Our corporate emissions for the same period of the community wide emissions profile (2019-20) is presented in the adjacent diagram.

Corporate Emissions Profile



## Climate Mitigation and Adaptation Strategy - framework

### Scope

The changing climate is a global, national and local issue. While we recognise that local government has an important role in both mitigation and adaptation, we also recognise that many strategies for mitigation and adaptation are outside of the statutory responsibility or influence of local government.

The scope of this Strategy is the geographical boundary of the City of West Torrens, and predominantly focuses on the roles and responsibilities of Council as a local government authority; it also seeks ways to influence and support the community.

Managing changing climate requires a dual approach:

- Mitigation - reduce or prevent greenhouse gas emissions to minimise the severity of impacts from our changing climate; and
- Adaptation - taking action to ensure the city is prepared and able to adapt to the current and future impacts of climate change that we are already locked into. This will help to build resilience, ensuring that our community can respond positively to the challenges and opportunities presented by a changing climate.

Mitigation and adaptation efforts work hand in hand. While mitigation addresses the causes of climate change, adaptation addresses the effects of climate change. The more mitigation that occurs i.e. reduction of emissions, the less severe the climate change and the less adaptation will be required. Some efforts can actually achieve both objectives.

This Strategy aims to identify actions that we can deliver locally.

### Planning and investing in our future

Developing the Climate Mitigation and Adaptation Strategy helps to plan and invest in future activities by:

- Providing direction for our climate change mitigation and adaptation activities.
- Recognising and building upon our achievements in mitigating emissions and in undertaking adaptation actions.
- Setting out strategies to enable our Council, the environment and our community to be more resilient, better prepared and better able to adapt to future climatic conditions.
- Identifying mitigation and adaptation opportunities that can also result in indirect benefits such as cost savings.
- Enabling Council to lead by example in both climate change mitigation and adaptation and help build our community's resilience.



## Climate Mitigation and Adaptation - objectives and initiatives

### *Our pathway for reducing emissions and adapting to climate change*

Key objectives have been developed for climate mitigation and adaptation, addressing both mitigation (actions that reduce emissions) and adaptation (actions that build resilience).

These will be delivered through a range of long term and short term initiatives and a continual improvement approach to how we govern, plan, operate and deliver services.

Six key objectives are outlined below:

1. **Strong Climate Governance and Organisational Culture** - a focus on mitigation by reducing emissions and adaptation to increase our adaptive capacity.
2. **Community Resilience** - a focus on mitigation by reducing emissions and adaptation to increase our adaptive capacity.
3. **A Low Carbon Council** - a focus on mitigation by reducing emissions.
4. **A Water Sensitive City** - a focus on adaptation to build resilience.
5. **A Green and Cool City** - a focus on adaptation to build resilience.
6. **A Circular Economy** - a focus on mitigation by reducing emissions.



## Climate Mitigation and Adaptation - objectives and initiatives

### Objective 1: Strong Climate Governance and Organisational Culture

The effects of our changing climate represents the most important environmental challenge of our time. Strong governance and organisational culture are critical for directing and guiding the attitude and behaviour of people to address climate change in a meaningful way.

Governance plays an important role in increasing staff awareness of climate change issues, embedding climate considerations into organisational structures, processes and projects, and managing organisational risks and opportunities that climate change poses.

As part of strong governance, Council has established a committee dedicated to climate change issues and is a key partner in 'AdaptWest' which sets priorities for action across the region. This is also achieved through our participation on the Western Zone Emergency Management Committee, further demonstrating our commitment to climate mitigation and adaptation.

Organisational culture also plays a role in climate change as it reflects our values, beliefs and behaviour. A strong culture based on a collective vision, shared goals and responsibilities is much more likely to effectively implement climate-related strategies compared to a weak culture that operates in a 'silo' approach.

Staff awareness and active involvement are central to mitigating and adapting to our changing climate so we can build a more resilient community and organisation.

#### ***Our achievements to date***

The City of West Torrens has been working on creating strong climate governance and a positive organisational culture in relation to addressing climate change. Some examples are provided below:

- A partner council in the western regional climate adaptation program: AdaptWest, which recently won awards for its adaptation event called 'AdaptNow!' from the 2022 Resilient Australia Awards, and from the Planning Institute of Australia.
- Established a Standing Committee for climate change governance and reporting.
- Undertook a 'Climate Risk and Governance Assessment' to understand how climate adaptation is incorporated into our corporate processes and frameworks and identify climate risk exposure for our operational, financial and reputational resilience.
- Initiated waste management practices that lower our carbon footprint such as banning single use plastics.
- Signed the 'Adelaide Park City Charter' to support Adelaide as a National Park City.
- A partner in the Western Zone Emergency Management Committee.
- A member of ICLEI's 'Global Covenant of Mayors for Climate & Energy' program which seeks to collaborate and share information on climate issues.
- Joined ICLEI's 'Cities with Nature' program as a Pioneer Council to develop a network for collaborating and sharing information to facilitate urban greening.
- Established an internal Major Projects Group to ensure Council's strategic and corporate plans are considered in the delivery of major projects.
- Introduced an environmental management clause into all new Council executed lease/licence agreements to highlight responsibilities and obligations to minimise energy and water consumption and reduce the amount of waste disposal to landfill.

## Objective 1: Strong Climate Governance and Organisational Culture

### GOAL: *Climate action through strong leadership*

#### Initiatives to reach our goal

A range of short term and long term initiatives will be explored such as the following:

Building strong climate leadership and governance -

- Embedding objectives and goals of this Strategy into corporate and community activities, decision making, our Major Projects Working Group meeting agenda, long term financial planning, asset management, operations and procurement.
- Adopt a climate change policy to demonstrate our commitment and to drive climate change mitigation and adaption.
- Corporate and strategic plans will support and deliver the goals set out in this Strategy, and items included in our Strategic Risk Register and Plan.
- Reporting annually on implementation of this Strategy.

Raising staff and community awareness of the Climate Mitigation and Adaptation Strategy -

- Raising awareness of the goals of this Strategy through the staff induction process and via workshops to assist staff integrate mitigation and adaption to their area of work.
- Ongoing promotion of this Strategy within the organisation and the wider community, such as frequent messages on the importance of reducing emissions and ways to adapt.





## Climate Mitigation and Adaptation - objectives and initiatives

### Objective 2: Community Resilience

Climate change has been described by the World Health Organisation (WHO) as the biggest threat to our health and wellbeing in the 21st century.

We will continue to be affected by heat waves, intense storm events, flooding and bushfires, etc. These conditions can have a detrimental impact on the quality of our local environment, our day-to-day lives, and place added pressure on our mental and physical health. For example, during heat waves, ambulance call outs, presentations to emergency departments and hospital admissions are known to significantly increase.

Climate change may also impact certain parts of the economy with increased unemployment, financial stress, food insecurity and rising social inequalities.

Some people are more vulnerable to the effects of climate change than others, and it is important that these people are supported through community programs, services and infrastructure. Consequently, building the community's resilience to the effects of climate change is important and Council can continue to play a role in facilitating this.

#### ***Achievements to date -***

Our Council strives to have a positive impact on the health and wellbeing of our community and build resilience to climate change.

Key projects, programs and initiatives undertaken:

- Partner with organisations to mitigate and adapt to climate change - such as AdaptWest.
- Mapping of urban heat and tree canopy cover across West Torrens to help prioritise cooling strategies and targeted tree planting.
- Community resilience programs to help the community be prepared for events such as storms, flood inundation, and heatwaves.
- Community information packs to assist with adapting and coping with heat.
- Red Cross Climate Ready Champions Program - raising awareness of the effects of climate change on our lives, what action can be undertaken, and how to be better prepared.
- Community event held by AdaptWest: 'AdaptNow! Changing for Climate Change' to share knowledge and experiences.
- Council's annual Environment Grants program, financial rebates for rainwater tanks and raingardens for the community, and solar panel rebates for community groups.
- Approving new tree incentive rebates to encourage the planting of trees and maintenance of regulated and significant trees on private property.
- Native Plant Giveaway and community planting days to increase awareness of the benefits of native plants and increase greening.
- Advocacy in the State's planning system to ensure retention and increase of tree canopy, green open spaces and reduction of impacts resulting from infill development.



## Objective 2: Community Resilience

**GOAL:** *Enhance the community's resilience to the effects of climate change*

### Initiatives to reach our goal

A range of short term and long term initiatives will be explored and undertaken to reach our goal and overarching objective, such as:

- Continue to provide informative resources and other support to assist the community mitigate emissions and adapt to climate change.
- Enhancing accessibility to quality green open spaces and cool refuges to maximise community health and wellbeing.
- Seeking opportunities to create age friendly places that are resilient to a changing climate.
- Continuing to offer financial support to the community for actions that build resilience to climate change, such as through environmentally related rebates and grants.
- Exploring emerging opportunities, trialling new technology and developing programs to support our businesses and residents to better care for our land and adapt to a changing climate.
- Continuing to undertake hazard planning and emergency management planning.
- Encouraging and supporting sustainable forms of transport such as walking and cycling, public transport, electric vehicles and charging stations.
- On-going participation in AdaptWest and the Adelaide Coastal Councils Network (Metropolitan Seaside Councils Committee).
- Continuing to influence the Planning and Design Code to reduce the climate impact of the built environment.
- Continuing to collaborate with the State Government and the Local Government Association on programs and funding opportunities as they arise.



## Climate Mitigation and Adaptation - objectives and initiatives

### Objective 3: A Low Carbon Council

Without decarbonisation, the global climate will become increasingly unsafe, unstable and extreme, posing risks for all. Greenhouse gases are emitted via the energy and fuel consumed by Council's assets, operations and in the delivery of community services. So too does the fuel and energy consumed by residents and businesses going about their daily life.

The South Australian Government has set goals to reduce the state's greenhouse gas emissions by more than 50% below 2005 levels by 2030 and to achieve net zero emissions by 2050. It has also recently declared a Climate Emergency.

Nearly half of the emissions in the West Torrens area arises from transport related activities. A large area of West Torrens is dedicated to the Adelaide Airport (Commonwealth land) and we do not have control over its activities or carbon management measures, other than advocacy in terms of decreasing the overall carbon footprint in West Torrens. Despite the large area of Airport land being in West Torrens, the actions taken by us via this Strategy will contribute towards mitigating emissions and adapting to the impacts of climate change.

Transitioning to lower carbon lifestyles through the use of renewable energy sources, energy efficient public lighting, reliable public transport options, active travel, diverse employment options within close proximity to home and sustainable home and garden designs will contribute to mitigating the impact of a changing climate.

Reducing carbon emissions from our corporate operations provides a range of direct and indirect benefits to us and our broader community. Reducing emissions also supports regional, national and international commitments in working towards mitigating and adapting to the impacts of climate change.



#### ***Our achievements -***

The City of West Torrens has implemented a number of actions aimed at reducing emissions and enhancing our sustainability performance, as outlined below:

- Ongoing monitoring of emissions from Council buildings and operations.
- Installed LED lighting in streets and public spaces.
- Installed 28 solar systems on 20 Council-owned buildings, providing renewable energy to our buildings and abating greenhouse gas emissions every year.
- Installed 11 solar hot water systems on Council owned properties.
- Transitioning Council's vehicle fleet to low carbon vehicles such as hybrid and electric vehicles and exploring options for public charging stations for electric vehicles.
- Electric bicycles available for staff use.
- Developing a new Transport and Movement Strategy with a focus on active transport and reducing emissions.

## Objective 3: A Low Carbon Council

### GOAL: *Reduce greenhouse gas emissions*

We can become a low carbon council by reducing emissions, improving energy efficiency, sourcing renewable electricity and through our governance and procurement practice.

#### Initiatives to reach our goal -

- Explore options to set a target to reduce emissions and/or to adopt renewable power.
- Deliver a program of works to reduce Council's greenhouse gas emissions.
- Monitor and report annually on emissions to track performance and to identify opportunities for improvement.
- Transition to 'climate smart' buildings and assets by improving water and energy efficiencies, implementing capture and storage technology for renewable forms of energy, and using alternative sources of water where possible.
- Explore options to increase green power purchase for electricity for Council-owned buildings.
- Continue the rollout of LED efficient public lighting and solar lighting.
- Develop a Council electric vehicle transition plan to reduce vehicular emissions.
- Establish a network of public electric vehicle charging stations.
- Encourage walking and cycling and use of public transport and facilitate through new and/or upgraded infrastructure.
- Encourage community climate-friendly behaviour and practice.



## Climate Mitigation and Adaptation - objectives and initiatives

### Objective 4: A Water Sensitive City

To ensure we have a liveable and sustainable city, we need our urban water systems and landscapes to be resilient to the impacts brought on by our changing climate and extreme weather conditions. A water sensitive city represents an aspirational future state for water management to achieve that outcome.

Water helps maintain the environmental and recreational values of our parks and ovals, streetscape appeal and supports community health and wellbeing. In addition, a passive evaporative cooling effect is created through watering outdoor spaces, thereby reducing urban air temperatures. It is important to apply water in our landscape to achieve multiple outcomes that a liveable and sustainable city depends on, such as cool and green places.

Reducing dependency on mains water supplies is important. We have adopted water efficiency measures and use water from a range of sources such as recycled water (from the Glenelg to Adelaide Parklands Recycled Water Pipeline (GAP)) to irrigate many of our parks and reserves, as well as using bores and stormwater.

There is a renewed focus on improving water efficiency within Council buildings through capturing and reusing rainwater and grey water and by installing water efficient fixtures and fittings to reduce mains water usage.

Reducing flood risk is an important aspect of addressing a changing climate and in supporting a water sensitive city, and we will continue to address these risks.

Moving forward there will be a focus on encouraging residents to keep their gardens green and cool through periods of hot weather, while using water efficiently and sustainably.

#### ***Achievements to date -***

- West Torrens is a state leader in applying Water Sensitive Urban Design (WSUD), e.g. raingardens, street tree inlets, bioretention basins, permeable pavers and wetlands. These are found in our parks and streets to create cooler and greener and more sustainable places.
- West Torrens collaborated with SA Water on the cooling benefits of well-irrigated spaces, and developed a webpage to help the community find a cool park/ playground.
- Provide rebates to residents for rainwater tanks to encourage sustainable living.
- Improved water efficiencies for turf with all irrigation systems at parks and reserves upgraded to Irrigated Public Open Space (IPOS) Code of Practice standards.
- Installed data loggers on water meters for new irrigation systems to closely monitor irrigation water and detect issues such as leaks immediately.
- Developing a stormwater management plan for local drainage across West Torrens.



## Objective 4: A Water Sensitive City

**GOAL: *Use water efficiently and effectively to build resilience to a changing climate***

### Initiatives to reach our goal -

- Undertaking an Optimal Water Mix Study to improve water security and inform targets for water use efficiencies and conservation.
- Implementing Council's Water Management Action Plan to support the delivery of actions focusing on water use efficiencies, water quality and water consumption.
- Identifying opportunities to improve water use efficiencies in Council's buildings and use alternative water sources when possible.
- Continuing to use a range of water sources to reduce reliance on the mains potable supply, such as rainwater tanks, and expand the use of GAP water to irrigate ovals and reserves.
- Exploring options to harvest and reuse stormwater.
- Installing data loggers on irrigation meters and in Council owned buildings to identify issues more promptly and to effectively manage water consumption.
- Exploring options to use water as a mechanism to create healthy and cool spaces.
- Continuing to implement Council's stormwater management plans to mitigate flood risk, improve water quality and reuse opportunities.
- Adopting best practice stormwater management in Council projects and Development Applications, such as WSUD.
- Advocating for refinement of state planning policy to raise the profile of WSUD.
- Continuing to offer rebates to the community for actions that support a water sensitive city.
- Encouraging the community to adopt sustainable water practices, such as water efficient devices, rainwater tanks and watering gardens to create a cooling effect in hot weather.



## Climate Mitigation and Adaptation - objectives and initiatives

### Objective 5: A Green and Cool City

Increased temperatures and reduced rainfall associated with climate change can cause heat and water stress on the environment and people. Trees, parks and gardens provide much needed shading and cooling through our suburbs, reflect heat and actively cool and clean the air by evapotranspiration. They are therefore very important elements in building resilience to climate change by supporting the health and wellbeing of residents and the environment.

Tree canopy and other forms of green cover are at risk due to urban infill replacing trees and backyards, as well as a drier and hotter climate making growing conditions unfavourable for some species and loss of habitat. The replacement of greening with impervious surfaces also creates more stormwater, putting stress on the drainage network.

By enhancing the greening across the city, and encouraging the community to do the same, we are supporting the State Government's target of increasing green cover by 20% by the year 2045.

Urban design and selection of building materials and colours can have an impact on urban heat temperatures. Dark coloured roofs and paving can create urban heat islands. This can be largely avoided by retaining green cover and by selecting alternative materials and treatments, such as lighter coloured roofs and roads.

Climate resilient buildings, spaces and places can play a significant role in creating an urban environment that is amenable and comfortable for residents and visitors and contribute to a healthy community.



### **Achievements to date**

The City of West Torrens has undertaken many greening and cooling activities such as:

- Supporting the successful campaign to make Adelaide a National Park City and working with State Government on the metro-wide Greening Strategy.
- Mapping of urban heat and tree canopy across the council area.
- Council's Tree Strategy - informs the management and planting of trees on Council land.
- Tree audit - gathered information on tree species, their location and health status, etc.
- Using 'Forestree' software - a tree inventory and management tool for an urban forest.
- 'Trees in Challenging Spaces' project - a collation of best practice planting techniques to grow healthy, vibrant trees in confined spaces and enhance tree canopy.
- Community education, stewardship and incentive programs such as Native Plant Giveaway, community planting events, dune revegetation, and 'Tree Tags' highlighting benefits of trees.
- Cities with Nature - an international program aimed celebrating nature in our cities.
- AdaptWest - implementation of the regional climate change adaptation plan.
- Council's Open Space Plan - recognises the importance of greening and cooling.
- Successfully applied for external grant funding for tree planting activities.

## Objective 5: A Green and Cool City

### GOAL: *Enhance tree canopy and cool urban heat*

#### Initiatives to reach our goal -

We will enhance greening and cooling on land managed by Council by:

- Setting a target to increase tree canopy cover and measuring cover over time.
- Encouraging the greening of verges.
- Implementing our Tree Strategy including using a mix of tree species to optimise greening and cooling, understanding species' resilience to climate change, and planting trees in areas of low canopy coverage, high urban heat and social vulnerability.
- Increase greening along drainage corridors.
- Using water to cool public open spaces - such as irrigation, fountains and misters.
- Seeking opportunities to provide shading for Council's playground equipment.
- Investigating opportunities to acquire land for open space and tree planting.
- Collaborating on regional and metro-wide projects such as further mapping of urban heat and tree canopy.
- Investigating opportunities for our roads, carparks and buildings to absorb less heat, thereby alleviating urban heat island.
- Minimising the impacts of Council's projects and infrastructure on tree canopy cover and green space, and requiring an offset to replace any unavoidable loss of green cover.
- Identifying and applying for relevant funding opportunities when available.

We will support the community in planting and caring for trees/green cover by:

- Offering rebates for the community to enhance greening on their property.
- Encouraging the community to green road verges and water street trees and care for their gardens during hot weather.
- Encouraging the community to retain trees through the planning and development process.
- Continuing the Native Plant Giveaway program for residents and community planting days.



## Climate Mitigation and Adaptation - objectives and initiatives

### Objective 6: A Circular Economy

Climate change, waste and material use are closely linked. Greenhouse gas emissions are released during the extraction, processing and manufacturing of goods to serve our needs.

Waste in landfill emits greenhouse gases and even the vehicles that collect our household waste emit greenhouse gases (unless sourced by renewable power). The decomposition of household organic waste emits greenhouse gases and so tackling food waste is vital to reducing carbon emissions.

Manufactured goods use natural resources such as water, fuel, metal and timber in their production and this process emits greenhouse gases. Therefore, rubbish sent to landfill can represent a significant amount of greenhouse gases.

A transition to electric vehicles using renewable power is another way of reducing emissions.

Lowering consumption, reducing waste and reusing materials will help reduce pressure on the natural resources while reducing emissions.

A circular economy is based on using less natural and raw materials, keeping products in use longer and designing out waste and pollution. A transition to a circular economy is an important element in reducing emissions and mitigating the effects of climate change.

#### ***Achievements to date***

- A dedicated Council Committee established to focus on waste management initiatives.
- Desktop mini bins provided to staff to foster a culture of waste minimisation and reuse.
- Waste separation bins in Council's kitchens to prevent contamination of waste streams.
- Paper recycling bins in Council's photocopy rooms.
- Reuse of soft and hard plastics, crumb rubber and used printer toners for road construction.
- Reuse of green waste such as for mulching.
- Provision of battery recycling containers to enable people to dispose of batteries in an environmentally friendly manner.
- RecycleSmart - a free home collection service for recyclable items for our residents.
- Introduced soft plastic recycling in Council offices to divert more waste from landfill.
- Eliminating single use plastics and banned the release of helium balloons at Council events.
- Encourage stall holders at non-Council events to use compostable products.
- Provide information and resources for schools and the public on waste and recycling topics.



## Objective 6: A Circular Economy

**GOAL: *Reduce waste to landfill and increase the reuse of materials***

### Initiatives to reach our goal -

A range of initiatives will be explored to develop a circular economy, such as the following:

- Finalise and implement Council's Waste Strategy.
- Embed circular economy principles into our procurement policy and practices.
- Further reduce corporate paper use.
- Seek opportunities to increase the use of materials with recycled content such as:
  - Office stationary/paper.
  - Park furnishings and fixtures.
  - Construction materials.
  - Compost.
- Improve waste segregation and management and at council-owned facilities.
- Encourage 'waste-free' public events.
- Encourage the reduction of food waste.
- Advocate for being a city free of single use plastics including reducing single use plastic water bottles.
- Continue to implement waste reduction and recycling initiatives within the organisation and the community.
- Continue to collaborate with other levels of government and external organisations on waste and recycling initiatives to support a circular economy.



## Consultation on the Strategy

Community consultation on the draft Strategy was undertaken from 4 October to 9 November 2022.

Electronic versions of the draft Strategy and feedback form were made publicly available on Council's 'Your Say' platform. Project information spaces were created at the Civic Centre and the Hamra Centre Library, with hard copies of the draft Strategy and feedback form available at these locations.

The consultation program was advertised on Council's website and social media to encourage people to provide feedback. Posters were also placed at Council's community centres and hubs to publicise the consultation program and to encourage feedback. In addition, the consultation program was publicised at the recent 'Grow It Local' community event on Saturday 8th October with staff available to discuss the Strategy and answer questions with the audience.

Community consultation on the draft Strategy helped to confirm the issues and objectives, and were used to refine the initiatives under each objective.

Submissions received from the community identified the objective "A Green and Cool City" as the most important objective, and reiterated the importance of increasing greening to cool urban heat, protecting trees and expanding tree canopy cover, and minimising impacts of infrastructure and other activities on green cover.

Council approved the Strategy at its meeting dated 21 February 2023. The final Strategy is publically available on Council's website.



## Implementation and reporting

Progress on delivering the Strategy will be reported on regularly such as via Council Committee reports, departmental activity reports, and other reporting mechanisms.