Mission Possible

Action to net zero & beyond

by the community of Charles Sturt

We see our community continuing into the future as a beautiful green, happy, healthy, place where people are living and interacting. We know climate change is already impacting us and it is imperative that we reduce emissions and adapt to the changing climate.



Photo courtesy of the City of Charles Sturt

Acknowledgement of Country

The members of this group would like to acknowledge the Kaurna people of the Adelaide Plains and all Traditional Owners of country throughout South Australia. We pay our respects to Elders both past and present and recognise and value the importance of their culture and heritage.



A snapshot of some of our group members

Acknowledgement of group members

This action plan was created and refined by a group of community members from the City of Charles Sturt. These group members all have different and special connections to this area, from living and working in the community to volunteering and participating in community groups. The group members have all brought unique voices and knowledge to this plan through lived experience of the area and expertise in fields directly connected to emission reduction. Over the past year the group have worked diligently to produce this document for their community, to improve the area for all to enjoy into the future.

Contents

Mission Possible – Community Climate Action 5

Our Vision 5

Our Target 5

About Our Community 6

Community Greenhouse Gas (GHG) Emissions 7

Creating a real, action orientated plan – to make the Mission Possible 8

Monitoring, evaluating and reporting our progress 9

Our Priorities 9

Buildings and Energy 10

Key Action 1 – Undertake household or business energy assessment 12

Key Action 2 – Install solar photovoltaic (PV) panels 13

Key Action 3 – Electrify Everything - Move to 100% electric homes, businesses, industry, other buildings and operations. 14

Key Action 4 – Create more sustainable and efficient homes and buildings 15

Transport 17

Key Action 1 – Increase active travel 19

Key Action 2 – Increase use of public transport 20

Key Action 3 – Increase the number of electric vehicles (EVs) purchased within our community 21

Waste and Circular Economy 22

Key Action 1 – Significantly reduce the amount of organic waste going to landfill 25

Key Action 2 – Significantly reduce waste to landfill 26

Key Action 3 – Businesses and industry can increase circular economy and waste avoidance 27

Greening and Growing 29

Key Action 1 – Become an informed community about the benefits of greening and what we can all do to help create cooler, greener and healthier suburbs 31

Key Action 2 – Establish and participate in community gardens and greening groups 33

Key Action 3 – Increase the number of plants and the amount of tree canopy on private land 34

Key Action 4 – Grow your own fruit, vegetables and herbs 36

Adaptation and Sustainable Living 37

Key Action 1 – Participate in community advocacy 39

Key Action 2 – Increase water efficiency on our properties and within our buildings 40

Key Action 3 – Build a community that is connected and resilient to climate change 41

Key Action 4 – Adaptation and Sustainable Living 42

Glossary 43

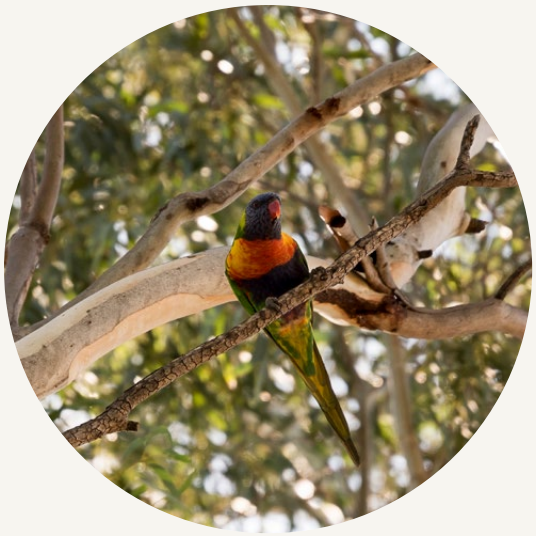
Mission Possible – Community Climate Action

Climate change is already impacting us in the City of Charles Sturt. We are experiencing hotter summers and longer heatwaves, more intense rainfall events, storms, flooding and rising sea levels.

This plan is written by the community for the community to inspire change, lead initiatives and show how we can work together to achieve climate action.

Limiting global warming is essential to reduce catastrophic impacts to the environment, people and biodiversity. To do this, greenhouse gas emissions must peak before 2025 and decline 43% by 2030 compared to 2019 emissions This is a massive task to achieve in a very short time window and will only be possible if we all take action to reduce our impact on the planet.





Our Vision

We see our community continuing into the future as a beautiful, green, happy, healthy, place where people are living and interacting. We know climate change is already impacting us and it is imperative that we reduce emissions and adapt to the changing climate.

Our Target

As a community we want to reduce community greenhouse gas emissions by 65% (compared to 2019 levels) by 2030.

This target is achievable and realistic for our community to reach the ultimate target of Net Zero by 2040.

Our community target was determined using the science based and equitable World Wildlife for Nature One Planet City Challenge methodology.

About Our Community

We are a diverse and unique community, made up of many people who all contribute differently within our City.

This plan is for everyone including:

- Residents
- Homeowners
- Landlords
- Renters
- Businesses
- Visitors
- Industry
- Community/Cultural groups
- Schools
- Council/Government





We know our community wants to take climate action, and to do more such as:

- Increase tree canopy coverage
- Increase recycling and composting
- Encourage and use more electric vehicles, solar and batteries
- Increase community gardening and grow our own food
- Improve education and information on climate change action
- Take small day to day actions to reduce emissions and the cost of living

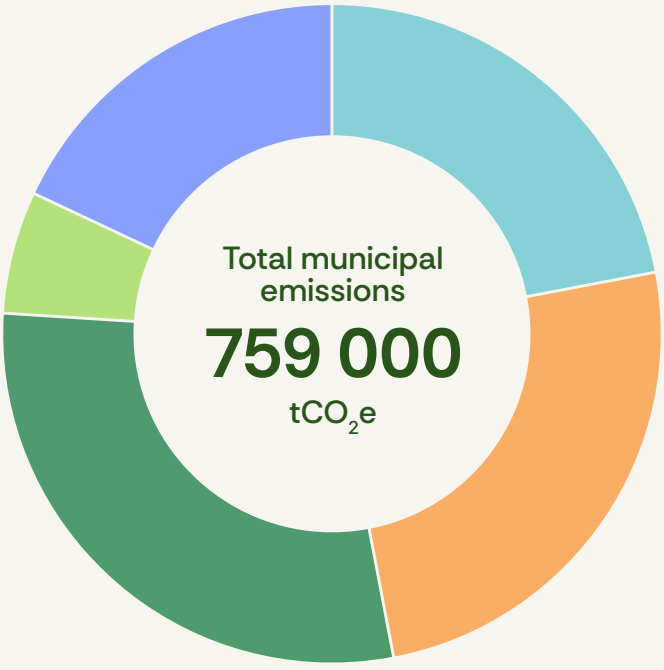
We heard our community and this action plan sets out to make the Mission Possible. Working together, inspiring action and sharing experience will work towards achieving our Net Zero target, by doing the things we know are possible.

Community Greenhouse Gas (GHG) Emissions

Our community greenhouse gas emissions (Emissions) profile below identifies 5 key sources that make up the 759,000 tonnes CO_2e (Carbon dioxide equivalent) produced by the City of Charles Sturt (CCS) community in 2021/2022 (financial year).

These sources will be the focus of community actions. However, we acknowledge that there are other emissions generated through the services we use and products we consume that we cannot measure in our community profile.

2021/2022 Financial Year – City of Charles Sturt
Community Greenhouse Gas Emissions



IPPU	**18%**
Waste	**6%**
Transport (Road)	**29%**
Electricity	**25%**
Residential	**11%**
Commercial	**9%**
Industrial	**5%**
Gas	**22%**
Residential	**6%**
Commercial	**2%**
Industrial	**14%**

Creating a real, action orientated plan – to make the Mission Possible.

In early 2023 community members came together to form a group and develop this plan. It provides key actions under 5 priority areas that the community can undertake to reduce emissions.

In developing Mission Possible the group wanted to ensure that together the community can:

- Work towards achievable outcomes
- Play a role in reducing greenhouse gas emissions
- All do what they can to reduce emissions and create the future we want

To help community implement Mission Possible a Community Climate Group will be established to:

- Implement actions and support community
- Develop a website or social media pages to promote actions and resources and monitor progress

The following process is a summary of how the plan was developed.

Late 2022

Community survey, conversations, and workshops

Early 2023

Understanding our community emissions profile

February 2023

Community group formed to write plan

May 2024

Draft plan developed

July 2024

Community consultation on draft plan

2024
Final plan published

Monitoring, evaluating and reporting our progress

The Community Climate Group will regularly monitor and evaluate our actions to ensure we are reducing our greenhouse gas emissions and working towards our target. The group will seek to publish our progress and encourage ongoing involvement to all members of the community to participate in actions within this plan.

The Snapshot Climate tool will be our benchmark to report on our Community Emissions Profile as it is updated each year.





Our Priorities

To achieve our target by 2030, we identified 5 priority areas:

- Buildings and Energy
- Transport
- Waste and Circular economy
- Greening and Growing
- Adaptation and Sustainable Living

There are many actions across these 5 priority areas our community can take to reduce greenhouse gas emissions and adapt to the impacts of our changing climate.

Buildings and Energy



Electricity and gas use are a major source of emissions for the community. Renewable electricity generation, storage and use, along with transitioning away from gas is important in our journey to net zero.

The South Australian electricity grid already includes a significant renewable electricity mix generated by solar and wind, and the South Australian Government has set a goal of achieving 100% net renewables by 2027.

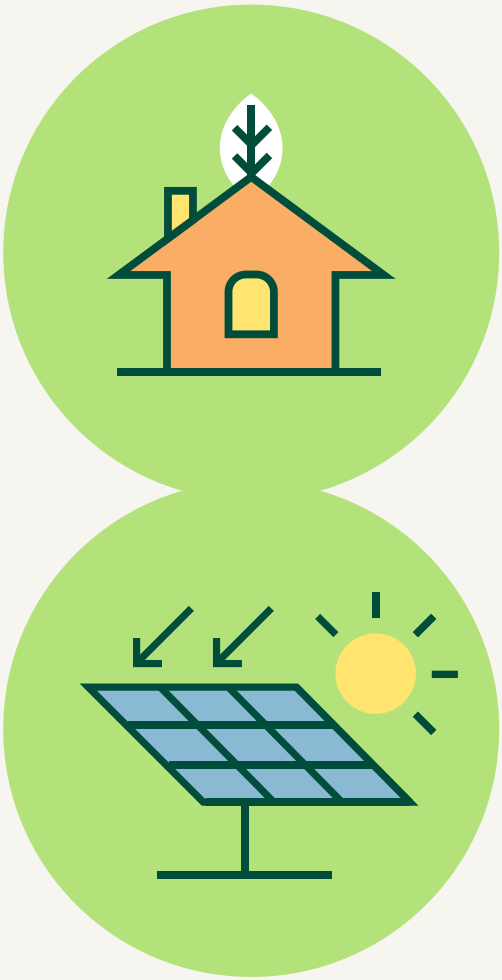
Transitioning to all electric homes, businesses and industry can be a planned transition over time with many people choosing to replace old gas appliances with new energy efficient electric appliances and using renewable energy from rooftop solar or green energy plans.

Electric appliances are generally more energy efficient than gas and can be powered by renewable electricity. They can reduce energy costs and do not release harmful pollutants into our homes and businesses like gas appliances.

It is important that as technologies change and we move away from gas that our homes are being built and retrofitted to meet these changes, including smart devices, electric transport charging and batteries.

Homes and buildings can also be designed to reduce energy usage and maintain thermal comfort. As we continue to experience warmer days, more extreme weather including heatwaves, drought, flooding and storms; our buildings need to be future proofed.

New homes being built ideally meet the 7-star energy rating standard. Double glazing, good insulation, and light-coloured roofs are most cost efficient when considered in the design stages of new homes rather than as a retrofit.



Additional benefits

- Many new appliances such as solar and hot water systems allow you to track and control your electricity generation or usage and encourages energy efficiency and usage change.
- Electrification can assist businesses and community organisations in meeting their net-zero / carbon reduction targets and strategies.
- Electrification adds value to your home, reduces your overall utility bills and can improve thermal. comfort.

Undertake household or business energy assessment

How you can do this

- Undertake a free, do it yourself energy assessment at your home or business using the home energy toolkit from council libraries
- Evaluate the results of your energy assessment and find ways to reduce household usage
- Contact one of the obliged retailers on the Retailer Energy Productivity Scheme to find out what free or subsidised energy efficiency activities/products your household or business might be eligible for



The Home Energy Toolkit includes an appliance meter, infrared and spirit thermometers, stopwatch, compass, audit guide and worksheets.

How the group will support and assist you

- We will promote how to do an energy assessment and how to make changes to reduce energy use

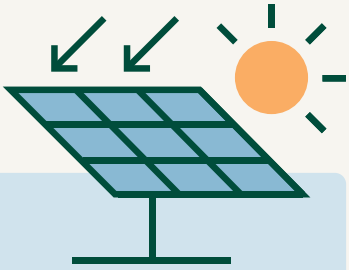
Resources and support

- SA Government information on energy assessments
- Australian Government Australia's guide to environmentally sustainable homes
- Retailer Energy Productivity Scheme for rebates and energy assessments
- Home energy toolkits are available to borrow from your local Charles Sturt library

Many home improvements and sustainable design choices are not only great for your environmental impact but will also greatly improve the health and comfort of your home or business while costing less to operate.



Install solar photovoltaic (PV) panels



How you can do this

- Understand your electricity bill and usage patterns
- Using online resources, assess the orientation of your property and available roof space to find out how much solar you could install and need
- Consider options for solar programs that may be less expensive such as the Council bulk buy solar and battery program
- If obtaining quotes, aim to get 3 quotes from established installers for the supply and installation of an appropriate solar PV system (with optional batteries) for your needs
- Tenants -speak to your landlords about the benefits of installing solar and the opportunity to benefit both parties as well as the environment
- Apartment dwellers, investigate options for PV panels and batteries with your body corporate
- Consider various financial options to enabling solar installation such as green loans

How the group will support and assist you

- We will promote reputable websites to assist you to choose the right solar PV for your specific needs
- We will provide a list of resources outlining funding or financial options to assist with the upfront cost of installing new systems
- We will provide details of other options for those who can not install solar

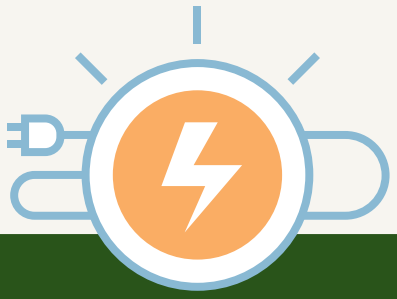
Community Story

Christine and her family have been living with a solar system since 2001 in an all electric home. By understanding her energy generation and usage and becoming more energy efficient, energy consumption of the four bedroom home was continuously reduced. Averaged over the year, her 1912 double brick family home is now generating more energy than is being consumed. Insulation, double glazing. LED lighting, remote controls, timers, a heat pump for hot water, draft proofing as well as grown up children having left the home have all contributed.

Resources and support

- Australian Government subsidies - Small scale technology certificates
- Australian Government information on solar for rentals and multi- occupancy properties
- Solar Quotes provides information, calculators, tools and reviews on solar PV
- SunSPOT provides a solar PV calculator based on your property your solar needs
- CORENA supports financing community energy projects
- City of Charles Sturt solar and battery bulk buy program with Shinehub

Electrify Everything - Move to 100% electric homes, businesses, industry, other buildings and operations.



Electric appliances are safer, healthier (no risk of harmful bi-products or gas leaks etc.) and a highly efficient alternative to gas and wood-burning.

A child living with gas cooking in the home faces a comparable risk of asthma to a child living with household cigarette smoke. (Climate Council)

Switching to electric vehicles and appliances, combined with improved energy efficiency measures, could save an average household as much as $2,250 per year. (CSIRO)

How you can do this

- Replace gas appliances at the end of useful life or when economically viable with:
  - Solar or heat pump hot water systems
  - Induction or electric stovetops, ovens and BBQs
  - Electric heating or split systems
- Future-proof buildings and businesses to be able to offer EV charging infrastructure and electrified appliances
- If renovating or building, install electric appliances and consider if a gas connection is even required
- Look into options for financial support to switch to electric
- Consider if manufacturing and business processes can be undertaken using electric rather than gas as a energy source
- Prepare your home or business for Vehicle-to-Grid (V2G) and Vehicle-to-Home (V2H)

How the group will support and assist you

- We will share all electric transition stories with the community through our social media pages
- We will develop a catalogue of resources on our social media pages

Resources and support

- Rewiring Australia provides information on benefits and solutions for home electrification and advocacy
- City of Charles Sturt – information on buildings and energy community emissions reduction
- Green loans are available to support individuals and businesses
- Retailer Energy Productivity Scheme for South Australia provides incentives for South Australian households and businesses to save energy

Create more sustainable and efficient homes and buildings

How you can do this

Existing Builds

- Program or use appliances to use the daytime solar generated (if available)
- Control pools and spas to reduce energy use
- Use energy efficient lights and appliances or replace less efficient ones at end of life or when economically viable
- Insulate where possible to improve thermal performance
- Consider replacing (if needed) or painting your roof a lighter colour to improve thermal comfort particularly in summer
- Draft proof the building by applying weather stripping and caulking to doors and windows
- Use blinds, curtains, awnings and vegetation to reduce unwanted heat gain or loss at different times of the year
- Consider double glazing or high-performance window films



Community Story

Ekkehard is a volunteer Technical Advisor at CORENA.

One way in which he has reduced his climate impact at home is through the installation of a heat pump with a 315L glass lined tank. This uses an average of 2.2kWh/day off peak over the last three years for his household of three adults in Adelaide.

New Builds

- Consider speaking to an architect or building designer with experience in sustainable design
- Consider how large your new building actually needs to be and be efficient with space
- Consider building orientation, glazing and shading for maximum sun access in winter and minimal direct sun in summer
- Build all electric with no gas connection
- Select lighter coloured roofs over dark coloured roofs
- Include carefully placed internal thermal mass such as polished cement floors where direct sun in winter can heat them and release it back at night.
- Insulate the building effectively
- Design for effective cross ventilation
- Aim for a well-sealed building
- Reduce the amount of hardscaping around new building and avoid installing fake grass which absorbs more heat even than pavers
- Try to source building materials locally where possible or with recycled and sustainable content

Buildings and Energy

KEY ACTION 4

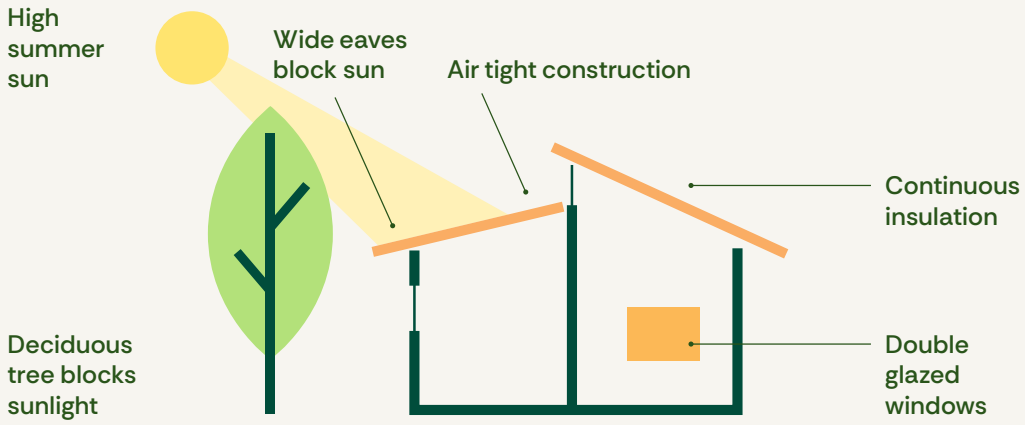
How the group will support and assist you

- We will share stories and information on how local business owners and households have improved their existing buildings on our social media pages
- We will provide information for DIY improvements that can be made by residents at their home on our social media pages

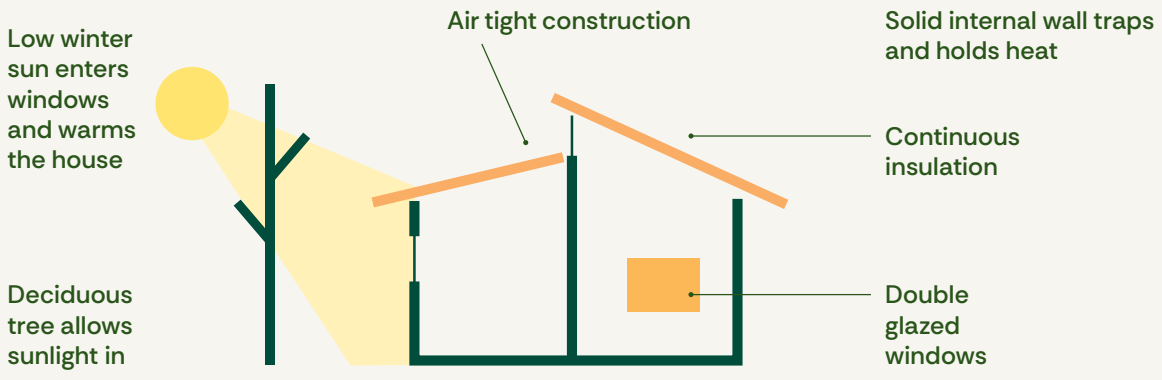
Resources and support

- AdaptWest's My Cool Home tool for designing, building, or retrofitting your environmentally sustainable climate resilient home
- Australian Government Your Home Australia's guide to environmentally sustainable homes
- Australian Government information on Energy Ratings
- Renew information on sustainability for homes

Summer



Winter



Transport



Transport emissions from private and commercial internal combustion vehicles make up a significant component of the community's emissions. Therefore, it is crucial for us to diversify and transition towards more active and sustainable modes of transport.

Photo courtesy of the City of Charles Sturt

Walking and cycling are the most environmentally friendly modes of transportation. Active travel also promotes healthier lifestyles and wellbeing as increased physical activity contributes to improved physical and mental health.

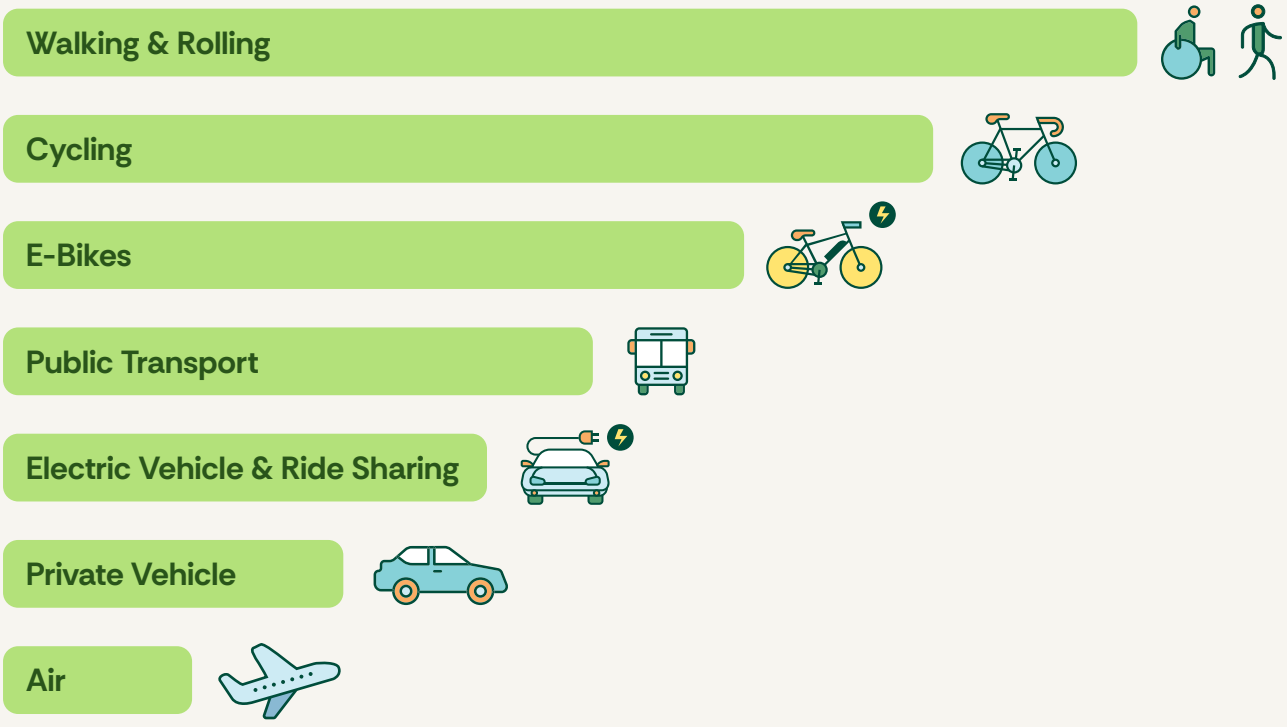
Public transport is more fuel efficient and produces less greenhouse gas emissions per passenger kilometer travelled compared to private internal combustion cars. Moving away from more cars on the road also reduces road congestion and air pollution (from internal combustion vehicles).

Reducing the number of vehicles per household or business and where possible buying an electric vehicle (EV) when you need a new vehicle will reduce emissions (particularly when powering with renewable electricity). This will also reduce costs for maintenance and reduce air pollution.

Additional benefits

- Reduction of cars leads to improved road safety
- Supports the local economy by attracting more foot traffic to local businesses such as shops, cafes and markets.
- Enables people to interact socially and feel connected with the local community. As a result, it can enhance community vitality and contribute to a more vibrant local atmosphere.
- EVs are more efficient, help reduce air pollution, are cheaper to run and service compared to internal combustion engine vehicles.

Using this transport hierarchy will be key to reducing emissions whilst providing numerous health and environmental benefits.



Increase active travel

How you can do this

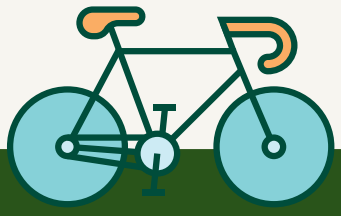
- For shorter distances, consider walking or cycling
- Rent an electric bike to try before buying
- Consider an electric cargo bike as a substitute for a car
- Improve your knowledge and confidence in bike riding by attend cycling proficiency training programs and bike repair information sessions
- Advocate for improved cycling and walking infrastructure and facilities in the community to improve safety, accessibility and connection
- Consider providing feedback on new infrastructure projects aimed at enhancing the walkability and cyclability of neighbourhoods
- Lobby to fast track changes in legislation for the use of private electric scooters and skateboards.
- Participate in cycling and walking events and groups
- Shop locally and use local amenities and facilities without using a car

How the group will support and assist you

- We will advocate for better school bike facilities and infrastructure
- We will investigate how we can create a new bike user group (BUG) or support a new bike program with a local school
- We will contact and work with existing providers to establish more bike repair and safety workshops to make them more accessible in different areas of the community
- We will promote local active travel events, groups and community stories on our social media pages

Resources and support

- Adelaide Bike Kitchen provides opportunities for the community to learn how to repair and maintain their bikes
- Cycle Instead is a cycling journey planner that assists in planning safer cycling routes around Adelaide
- City of Charles Sturt Council provides walking and cycling paths and provides a number of bike repair stations at key locations across the city.
- Westside BUG is a bicycle user group for cyclists who ride in the City of Charles Sturt
- Ride-a-Bike Right to learn how to ride a bike and improve your skills



Active travel or active transport includes

Walking

Bike riding (including electric bikes)

Rolling - wheelchairs, skateboards, roller-skates etc

Scootering

Increase use of public transport

How you can do this

- Use buses, trams and trains when possible
- Advocate for improvements in transport infrastructure design and planning to increase the accessibility, reliability, frequency and affordability of public transport

How the group will support and assist you

- We will advocate for electrification of Public Transport
- We will provide information and education on using public transport more effectively on our social media pages
- We will advocate for free or reduced cost of public transport use

Resources and support

- Adelaide Metro provides public transport timetables, maps and journey planner
- The 'Transit' App, or Google Maps are excellent tools to help you navigate public transport with live arrival times, connections and more
- City of Charles Sturt- information transport on community emissions reduction

Did you know there are over 580 bus stops and 90 routes, plus 13 train stations within the City of Charles Sturt. Council has improved and increased the number of bus shelters across the city.



Photo courtesy of the City of Charles Sturt

Increase the number of electric vehicles (EVs) purchased within our community

How you can do this

- Purchase a new or second-hand EV if you are in the market for a new car
- Transition your business fleet to EVs
- If you are interested, but not ready to purchase an EV, seek information, attend information sessions, talk to someone that has an EV or a car dealership and take one for a test drive
- Advocate for subsidies and rebates on the purchase of EVs
- Advocate for the increase accessibility and reliability of EV infrastructure in both mix-use and residential areas and for the expansion of Vehicle-to-Grid technology
- Prepare your home or business for Vehicle-to-Grid (V2G) and Vehicle-to-Home (V2H)

How the group will support and assist you

- We will ask the Australian Electric Vehicle Association to talk to the community about EVs and answer questions
- We will support and undertake advocacy for the community

Resources and support

- Australian Government Green Vehicle Guide provides general facts and information on purchasing EVs
- Good Car Co. for information on buying and selling EVs
- Adaptwest webinar on EVs
- Australian Electric Vehicle Association
- There are a number of programs for businesses to transition their fleet to EVs including novated leasing programs and Fringe benefits tax



The Charles Sturt Council with JOLT has over 10 publicly available EV charging stations. These are powered by 100% renewable energy and provide the first 7kWH free charge for community.

Find your local EV charging station using the JOLT app or JOLT Australia - Electric Vehicle Charging Stations

Waste & Circular Economy



Waste emissions account for 8% of the community emissions and is a priority area for emission reduction. In line with the South Australian Waste Strategy 2020–2025 the Charles Sturt community can support this to reach zero avoidable waste to landfill by 2030.

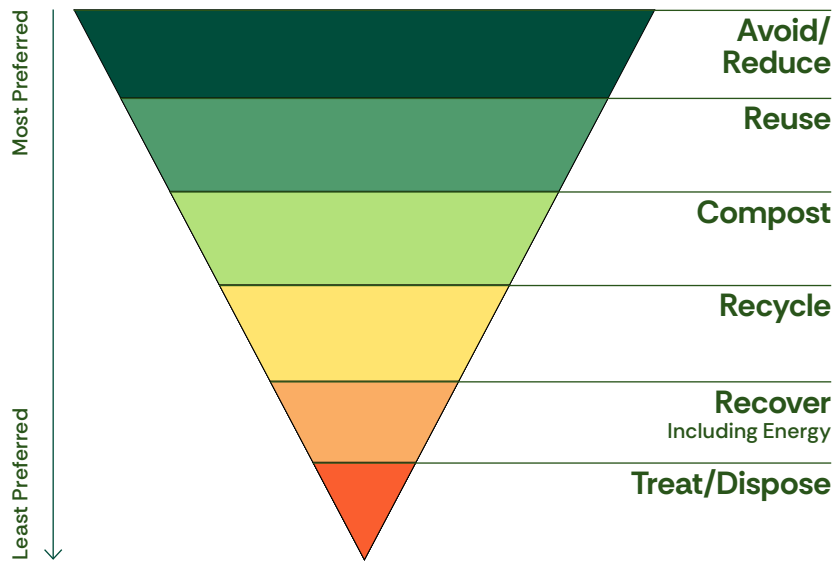
This action focuses on avoiding waste to landfill and helping the community to reduce, reuse, recycle and recover waste. With the remaining unavoidable waste being appropriately treated and disposed of.

South Australia has already shown a high level of leadership and commitment to 'reduce, reuse and recycle' by being the first state to introduce a container deposit scheme and ban plastic bags. Since 2021 South Australia has been phasing out the single-use plastics for sale, supply or distribution.

Around 30-40% of material placed in our resident's blue landfill bin is food waste. This material should be going in the green lid Food Organic Green Organic (FOGO) bin. Increasing the amount of food waste placed in the FOGO bin has environmental benefits as Council sends this off to be processed into a high-quality compost product. In addition, it prevents this material ending up in landfill which, when it decomposes, releases methane, a greenhouse gas that is more than 28 times more potent than carbon dioxide. Methane is responsible for around 30% of the rise in global temperatures since the industrial revolution.

One of the simplest and effective things we can all do to minimise our carbon footprint is to recycle waste. **Most of our waste can be recycled and about 83% (or 4.34 million tonnes) of all waste generated in South Australia was diverted from landfill in 2019-20**. SA leads the nation with the best recycling rate, but we can still do more!

The Waste Management Hierarchy



The waste management hierarchy is recognised as an aspirational framework for sustainability. We hope the Charles Stuart Community considers the waste management hierarchy to support behavioral change in how waste and resources are managed.

Circular Economy

Circular economy is becoming a widely used term in the journey to Australia's Net Zero by 2050, it means an economy that is producing no waste and pollution by design or intention. It refers to the better use of materials within the economy and involves more remanufacturing, repair, and reprocessing than the linear 'make-use-dispose' mode of our current economy.

The benefits of a circular economy for the community are numerous and include:

- Reduced waste and environmental impact
- Job creation and innovation
- Cost Savings; less materials and energy
- Community Engagement; recycling, repair and sharing goods
- Products and goods are designed to last longer, easily repairable, upgraded or used differently
- Manufacturers are more accountable for the waste they create and less likely to manufacture poorly made items



Credit: Freepik

Significantly reduce the amount of organic waste going to landfill

How you can do this

- Plan meals to avoid food waste (consider portion size, limit buying in bulk if you are not likely to use it)
- Where unavoidable food waste is generated, place it in your compost bin or FOGO bin
- Get your free kitchen caddy and a roll of compostable bags to place your food waste in then put it in your FOGO bin.. Kitchen caddies and bags can be collected from Council's customer service, libraries or order on-line
- Grow your own food and share with others, or preserve it if you have surplus produce rather than throwing out
- Support a change to the kerbside FOGO pick up to become weekly
- Businesses, industry and groups can implement actions to ensure food and green waste is not sent to land fill
- Donate excess food to programs and organisations such as Ozharvest and Foodbank
- Set up a Grow Free cart in your suburb to share food
- Set up your own compost bin

How the group will support and assist you

- We will create an email/letter template for community members to ask council to move to weekly FOGO bin pick up
- We will develop homegrown food swap or sharing opportunities, waste reduction info ideas
- We will share information and ideas on our social media pages to support community connections

Resources and support

- KESAB provide information and resources on waste reduction
- Foodwise is a guide to making the most out of common kitchen ingredients
- City of Charles Sturt information on waste reduction and services
- Semaphore Compost Network provides information and networking for composting and food waste reduction
- SA Government Which Bin provides details on what goes in which bin
- A Better Choice supports local fruit and vegetable shops and provides information on seasonal produce

Weekly trial of 1000 households within the City of Charles Sturt commenced May 1, 2023 and will finish June 2025.

Currently 30 – 40% of material placed in residential blue bins is food waste. The value of food wasted by each Australian household is valued at $2,200 to $3,800 a year.

Significantly reduce waste to landfill

How you can do this

- Buy and sell/give away second hand goods through garage sales, op shops, charities, on-line groups, and swap meets
- Borrow things rather than buy them
- Learn how to repair goods rather than throw away
- Go to a repair café if you can't repair it yourself
- Consider tailoring and upcycling clothes and textiles
- Avoid buying things that only have a single-use
- Place recyclable and compostable waste into correct bins rather than landfill
- Avoid buying things that can't be recycled or composted
- Consider using reusable rather than single use items such as cling film, nappies and sanitary products
- Shop at a bulk food store to reduce single-use plastic packaging

How the group will support and assist you

- We will create an extensive second hand and recycle/reuse map across the City of Charles Sturt for community access to reduce waste to landfill
- We will create on-line sharing to allow residents to advertise their garage sales
- We will set up a repair café or other events to support reducing waste to landfill
- We will create and provide free NO JUNK MAIL stickers to residents and businesses

Resources and support

- Australian OpShop listings for details of opshop locations
- Use on-line platforms such as Facebook Marketplace, GumTree, Freecycle, SwapU, Buy, Swap and Sell in Adelaide, Buy Nothing New, Street Bounty, trash nothing
- Bus tours of op shops around Adelaide
- City of Charles Sturt Beverley Recycling and Waste Centre
- Battery and mobile phone recycling at all Charles Sturt Libraries
- Sustainable West recycling stations at 19 On Green and Hindmarsh Library



85% of apparel purchased in Australia is sent directly to landfill at end of life.

When clothing is placed in the landfill bin, it can take in excess of 200 years for the materials to decompose in landfill. During the decomposition process, textiles generate greenhouse methane gas and leach toxic chemicals/dyes into the groundwater/soil

Businesses and industry can increase circular economy and waste avoidance

How you can do this

Implement economically sustainable practices within the waste management hierarchy to:

Avoid waste

- Promote design of products to increase repairability, durability, upgradability and recyclability
- Support reuse and repair of products and components
- Label products to enable better dismantling, reuse and recycling of products and information relating to recycling of products
- Educate employees on the importance of appropriate waste management

Improve the use of recycled material and build a demand for recycled products:

- Promote the use of recycled products and components in your business
- Advocate for extended producer responsibility to deliver better recycling goals of your products
- Use recycled products and create local market demand

Improve Resource Recovery

- Implement the 3 bin system and connect with other businesses to organise appropriate commercial waste collections in your area



- Invest in circular economy practices to filter out organic material from other materials (such as metals, paper and plastic) which may be able to circulate through repair, reuse, and recycling without entering landfill.

Improve information to support and enable consumers to make informed decisions on your products

- Provide information about the most appropriate disposal of your products and components
- Educate the community of possible alternatives of your products or components that may be less wasteful
- Support knowledge of the waste impacts of your products and components in the community

Improve information to support and enable consumers to make informed decisions on your products

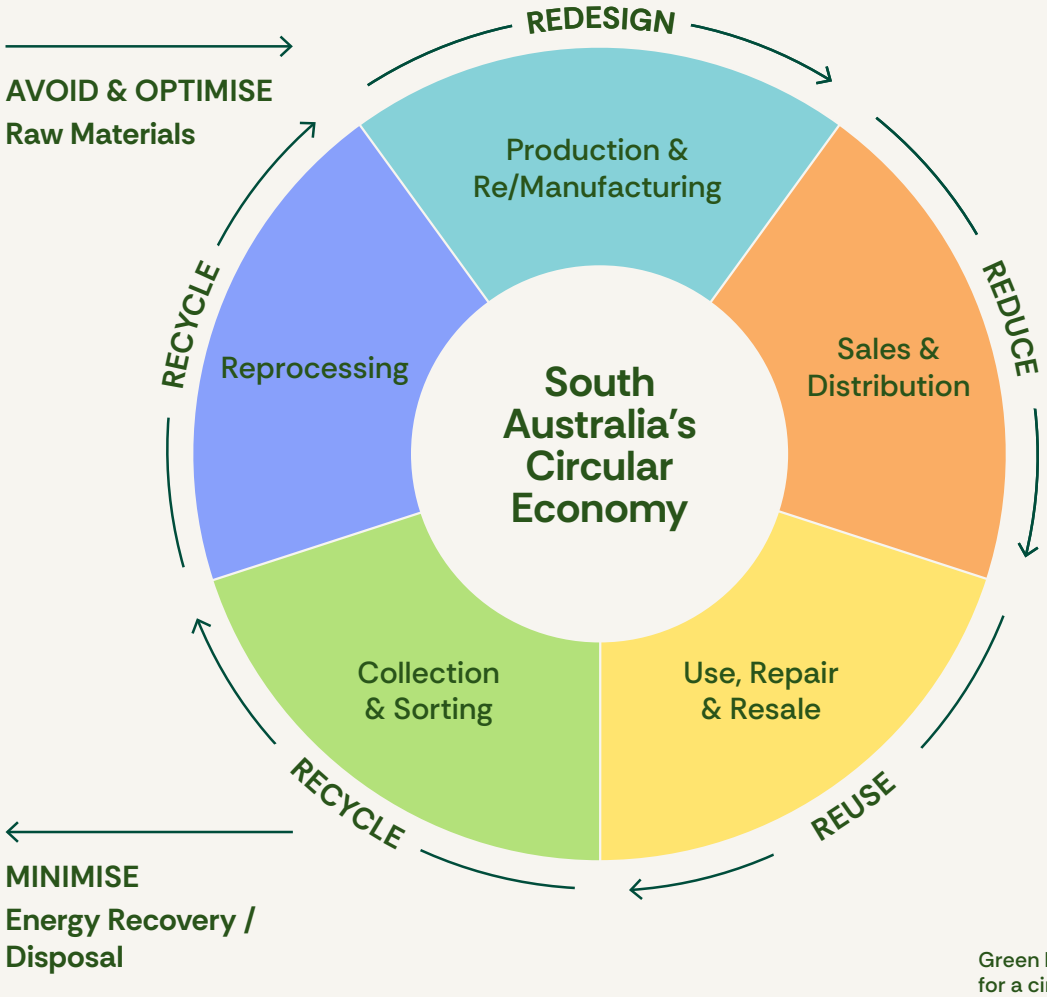
- Provide information about the most appropriate disposal of your products and components
- Look into sourcing alternative products or components that may be less wasteful
- Support knowledge of the waste impacts of your products and components in the community

How the group will support and assist you

- Raise consumer awareness about the importance of supporting businesses that embrace circular economy principles through awareness campaigns. This will be through a combination of social media pages/website/community meetings and workshops.

Resources and support

- SA Government Green Industries provide information, funding opportunities and programs for businesses



Green Industries SA advocating for a circular economy

Greening and Growing



All plants play a vital role in reducing emissions – from tall trees in a park to a small herb garden on your patio.

Photo courtesy of the City of Charles Sturt

With our cities having to cope with more and more people, it is important we all use our space wisely to help build back nature and our tree canopy - whether you are a school, a business, a local community group, a renter, or a homeowner. Tree canopy coverage across the city has reduced over the years and is now less than 9.35%. The City of Charles Sturt has a target to reach 25% canopy by 2025, but to do this we all need to contribute by increasing canopy on both public and private land.

Greening our spaces has many benefits such as:

- Improving health and happiness – green spaces for play, inspiration and community connection help address physical or mental health issues and social isolation while providing positive experiences for those with cognitive differences
- Building a connected community - from community gardens and gardening group initiatives to produce swaps, greening projects are a way to meet people in your neighbourhood
- Cooling our suburbs - shady, tree-lined streets have significant impacts in reducing urban heat island effects, which in turn helps to keep all our houses cool
- Supporting active lifestyles - shading the transport byways makes for cool, enjoyable journeys
- Providing food - planting native species for food and habitat for wildlife, or growing your own vegetables are both great ways to reduce carbon dioxide and produce something good



SA Government's Urban Heat and Tree mapping interactive map. View of Flinders Park Linear Trail.

- Protecting our soil – trees and other vegetation provides protection from storms and flood events by stabilising soil, lowering runoff and lowering the impact of rain and wind.
- Developing social responsibility through connection to nature. Green spaces provide educational opportunities for community groups of all ages
- Improving 'liveability' - greening our neighbourhoods is the easiest way to increase the value of our properties by making them liveable now and sustainable into the future
- Reduced air pollution
- Increased protection from UV radiation
- Reduced pavement heat and urban heat island effects
- Supports the city-wide target to achieve a 25% tree canopy by 2045

Become an informed community about the benefits of greening and what we can all do to help create cooler, greener and healthier suburbs.

How you can do this

- Talk to friends and neighbours about the benefits of street trees and local biodiversity
- Participate in a community event for planting and learning about greening
- Check out the State Government Urban Heat and Tree Mapping interactive map to for your local area
- Impart your knowledge to others to help them improve their 'green thumb'
- Go to your local plant nursery or a botanical garden and find our more
- Understand what plants are right for your space, for example water wise plants, natives
- Join Grow it Local for webinars and other information on growing



How the group will support and assist you

- We will provide counselling, or assign a 'buddy' subject matter expert from the community, to inform new developments
- We will participate as subject matter experts in online 'buddy' forums, e.g., social media chat groups
- We will hold community event information stands to answer questions from those in the 'wanting to do green or grow' but not sure where to start
- We will support campaigning, e.g., petitions, of relevant bodies to greening and growing policy and practice
- We will be champions of change in e.g., their family's school or care facility, offer to be a presence at events

Resources and support

- SA Government Green Adelaide provide information and funding opportunities for community, organisations and schools
- City of Charles Sturt Talking Trees with Sophie Thomson
- SA Government Urban Heat and Tree mapping interactive map
- Grow It Local provide webinars and events on growing

Community Story

The My Tree Project (MTP), launched in July 2020, engages school students in nurturing trees and creating art to promote the importance of trees. It is a partnership between WACRA (Western Adelaide Coastal Residents' Association) and AAEE (Australian Association for Environmental Education) enabling students to enhance biodiversity and combat climate change.

Students participate in every stage, from seed propagation to planting in school grounds and community spaces. This hands-on experience deepens their appreciation for indigenous plants and sustainability, forging a strong connection with nature. Their efforts significantly contribute to expanding the tree canopy and understorey vegetation in western suburbs, creating a cooler and more sustainable environment.













Children's artwork from the My Tree Project 2024

In addition to tree planting, students express the meaning of trees through diverse artworks such as paintings, collages, and Stobie Pole artworks displayed at school and within the community. These artworks vividly illustrate how trees provide essential habitat, beauty, shelter, recreation, nourishment, and life for all living beings. The project not only educates about environmental stewardship but also empowers students to actively participate in environmental conservation and community beautification efforts. It was awarded SA's Best Community Event 2023.

For more information about the Project, visit My Tree Project.

Establish and participate in community gardens and greening groups



Community Garden, Flinders Park

How you can do this

- Join a local garden group – or establish one! It can be as simple as a few neighbours to plant out verges, or something more ambitious like the greening of a railway corridor, or greening a median strip (check with council if on Council land)
- Get involved with a community garden group and see if there are opportunities to develop more native or food gardens
- Go along to an open day to your local community garden or greening group

How the group will support and assist you

- We will assist in setting up gardening groups by contributing experience and expertise
- We will assist as volunteers and subject matter experts in considering community applications to establish garden groups on council land
- We will leverage connections in similar groups, e.g., speciality plant societies, to expand networks

Resources and support

- City of Charles Sturt Community Gardens and Community Greening groups
- Grow It Local provide webinars and local networking opportunities with other growers
- Trees for life provide opportunities for planting events and information

Did you know: the average backyard size has reduced by 22% percent in the last 15 years?

Many of us don't have the gardens we use to, so community gardens and planting events are a great way to get back to nature, connect with our community and do something positive for our health and for our planet.

Studies show that the effects of gardening can be beneficial to physical and mental health, combining activity with social interaction and exposure to nature. Community gardening in particular can delay the symptoms of dementia and counteract social isolation for those with learning disabilities and poor mental health.

Increase the number of plants and the amount of tree canopy on private land

How you can do this

- Schedule in some gardening time and plant more - gardening provides proven physical and mental wellbeing benefits which counteract the effects of busy lives
- Access council or government schemes which offer plants at cheaper rates
- Look for free, cheap or discounted plants on social media sites, or try your hand at propagating from cuttings
- Look at your available space – note where the sun falls at different times of day or across the year, where soil can be accessed, beds can be built or pot plants can be placed
- Plan a garden design or redesign right for your space

How the group will support and assist you

- We will set up, or gauge interest in setting up, 'barn-raising' social media groups, e.g., where groups of people visit a home to assist in building garden beds, etc
- We will contact community groups such as residential facilities, schools, CALD communities with properties to suggest and support greening their grounds
- We will contact businesses in the council area with substantial grounds to suggest and support greening on site

Urban infill means many of our backyard trees are disappearing. On private land, the Charles Sturt area now has one of the lowest tree canopies in the country at only 9.35% - a direct result of this is the reduction in urban biodiversity. The Council target is to increase tree canopy to 25% by 2045. To achieve this, we will need to increase the amount of canopy on private property, which means we all need to be a part of the solution.



Every plant makes a difference - even a courtyard home or a balcony can be a haven for biodiversity or even be a productive garden! Think beyond grass and make your space, however large or small, a cool nurturing place for you and wildlife.

Greening and Growing

KEY ACTION 3



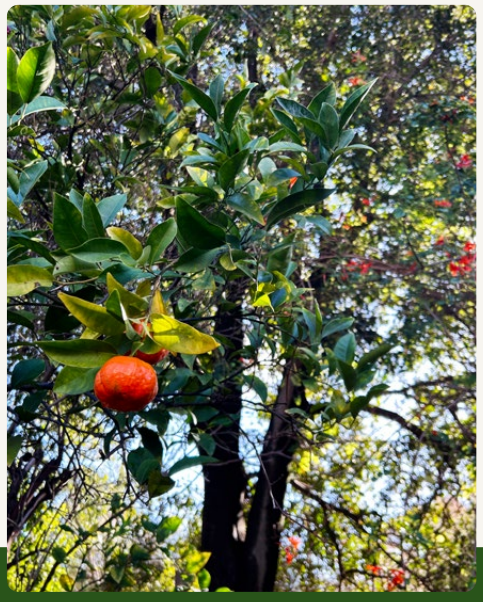
Resources and support

- Gardening Australia, Green Adelaide, Adelaide Botanic Gardens and Grow it Local for inspiration, support and practical information
- City of Charles Sturt trees on private property and community plant services
- City of Charles Sturt verges alive information and resources for design and regulations
- Gardening Australia YouTube clip on small space gardening
- Find the seed swap service at Ngutungka West Lakes
- SA Government Adelaide Garden Guide for New Homes for small garden ideas

Did you know: artificial grass is even hotter than pavers? Unshaded artificial grass can pose a risk of contact burns and increases radiant heat.

It also puts microplastics into our environment. This is why the CCS does not use - or allow residents to use artificial grass on median strips,and why you should avoid using it in your home too.

Grow your own fruit, vegetables and herbs



Growing your own fruit and vegetables increases the vegetation across our community and also reduces food costs and waste and can build community resilience. Consider sharing or swapping homegrown food with others.



How you can do this

- Learn about growing your own fruit, vegetables and herbs
- Plant and grow fruit and vegetables in your garden, raised garden beds, pots, wicking beds and more
- Join Grow it Local to learn more and connect with other local growers
- Participate in local food swaps
- Share seeds and participate in the seed service at Ngutungka West Lakes
- Join a local community garden

How the group will support and assist you

- We will share and promote tips and information on growing, using and sharing/ swapping homegrown food

Resources and support

- Gardening Australia, Green Adelaide, Adelaide Botanic Gardens and Grow it Local for inspiration, support and practical information
- Seed swap service at Ngutungka West Lakes

Adaptation and Sustainable Living



The effects of climate change are already being noticed. We are experiencing an increase in frequency and intensity of climate change influenced weather extremes. To withstand these impacts, climate adaptation action is needed alongside carbon emissions reduction.

Photo courtesy of the City of Charles Sturt

As a community, we can prepare for and respond to these impacts to reduce the risk, support survival and resilience, and take advantage of opportunities.

As a community we will need to be agile, compassionate, supportive of others and integrate the concepts of adaptation action and resilience into our everyday life, work and planning.

This can include:

- Understanding and promoting adaptation and sustainable living so we can all make positive sustainable choices with less impact on the environment.
- We can make our homes more climate friendly, incorporate sustainable consumption into our daily lives, ensure smart energy use, make better food choices and promote divestment, recycling, and water storage
- Working together and inspiring others to communicate with impact, by encouraging and empowering the community we live within to take personal action, to participate in climate issues that impact us all, and feel empowered to participate in advocacy or community groups that support each other and community resilience.
- We can collaborate and support each other to conserve precious water and become more water resilient, by undertaking household, business and community group rainwater harvesting and water diversion in our gardens. This includes working with local businesses to also harvest rainwater and use water diversification for gardens or business operations.



Rain Gardens, Flinders Park

- We can become more connected as a community by participating in and being a part of our local community to build resilience and have the support and ability to manage climate impacts

Additional benefits

- Improved health and wellbeing
- Improved sense of belonging and moving toward resilience through knowledge and action
- Enables improved recovery from an emergency
- Increase community engagement
- Supporting others in times of crisis or emergency
- Build relationships

Participate in community advocacy



How you can do this

- Consider what is important to you and advocate for change
- Write to Council or your local MP about issues important to you
- Join a group or organisation that supports and advocates for change important to you
- Participate in consultation and provide your ideas and thoughts on issues important to you
- Speak with friends and family about issues important to you



How the group will support and assist you

- We will lead and inspire others within our community to communicate with impact through our social media pages

Resources and support

- Climate Action Network Australia
- South Australians for Climate Action
- Parents for Climate
- Earthday
- School Strike 4 Climate Australia

Increase water efficiency on our properties and within our buildings



Having a rainwater tank or diverting water run-off to your gardens makes for better gardens and reduces flooding in or around your house. Consider creating a rain garden on your property.

Save money and your garden, by having your own rainwater tank that helps keep your garden green during summer.

How you can do this

- Install a rainwater tank on your property
- Use rainwater to water your garden and if possible, for flushing your toilets
- Increase the amount of permeable and porous surfaces on your property to reduce runoff and cool your property.
- Plant suitable vegetation for our local climate and consider your soil, shade and other factors
- Attend workshops / webinars / demonstrations to be more informed and build networks
- Install water efficient fixtures
- Understand your property to increase rainwater collection and usage

How the group will support and assist you

- We will work with local tank and plumbing businesses to provide information and offer 'deals' for Charles Sturt residents
- We will inspire and support the community to capture and conserve precious water and become more water resilient through information and advice
- We will encourage local business to harvest rainwater and water diversification to gardens or business operations.

Resources and support

- Water sensitive SA for information
- City of Charles Sturt water initiatives
- Australian Government household water efficiency
- Australian Government Your Home information on water

Build a community that is connected and resilient to climate change

How you can do this

- Participate in opportunities that build connectedness and resilience to the impacts of climate change
- Connect with neighbours and other members of your community, use the Red Cross Neighbour Card
- Connect into programs and services across the city
- Volunteer or join a local group
- Join local networks and groups relevant to your situation ie cultural, sporting, hobby, lifestyle/situation
- Provide services, events or opportunities for connection such as a Street Meets
- Understand the impacts of climate change relevant to your situation
- Take daily conscious action to adapt to the impacts of climate

How the group will support and assist you

- We will promote opportunities for connection and adaptation action on our social media pages
- We will start a local Sustainability Market for the community

Resources and support

- City of Charles Sturt; Community and Recreation, Events, Street Meets
- Australian Red Cross for ideas on kindness and connection
- SA directory of community services
- Sustainable Communities South Australia for events, projects and participation





Woodville Greening Group on a working Bee

Build a community that is prepared for local climate disasters and their impacts such as floods, extreme heat, drought, bushfires

How you can do this

- Understand the hazards and risk of climate change disasters specific to you
- Be prepared for emergencies by creating an emergency plan
- Participate in events and actions to support preparedness
- Support others to be prepared through conversation, services, information and programs

How the group will support and assist you

- We will work with local emergency services and organisations to provide information and education to the community on our social media pages
- We will provide a link to templates for emergency plans on our social media pages

Resources and support

- Australian Red Cross Emergency preparedness guide
- Australian Red Cross Climate ready communities information
- SA State Emergency Service (SES) for information
- City of Charles Sturt Community Emergency Management Plan
- AdaptWest AdaptNow for business and community preparedness advice and information
- SA Government information on emergencies and safety

Glossary and Acronyms

CALD communities	Communities with a significant proportion of people from Culturally and Linguistically Diverse (CALD) backgrounds, which may include migrants from various parts of the world, and Aboriginal Australians.
Carbon dioxide	A colourless, odourless gas that is primarily produced by burning fossil fuels and other processes. It is a major contributor to climate change, as it traps heat in earth's atmosphere and causes global warming.
Carbon dioxide equivalent	This refers to the quantity of carbon dioxide that is produced by a particular activity or process. It is used as a measure for comparing the relative environmental impacts of different energy sources or products.
Circular economy	An economy that is producing no waste and pollution by design or intention. It refers to the better use of materials within the economy and involves more re-manufacturing, repair, and reprocessing than the linear 'make-use-dispose' mode of our current economy.
Container deposit scheme	A financial benefit to community groups, sporting clubs and charities by taking eligible beverage containers to recycling return points to receive a 10 cent refund for each container.
Divestment	The process by which an organisation or individual sells investments, divisions or assests in a particular sector or industry.
Effective cross ventilation	A system that efficiently distributes incoming fresh air throughout a space while removing stale air, improving indoor air quality and reducing the need for mechanical ventilation.
Electric cargo bike	An electric-powered bicycle designed to carry goods or packages, typically with an enclosed box or cargo carrier.
Electric Vehicle (EV)	Also known as battery electric vehicles, they have an electric motor instead of an internal combustion engine. They use a large battery pack to provide electricity to the electric motor to produce mechanical power.

Glossary and Acronyms

Electrification	Replacing technologies or processes that use fossil fuels, like internal combustion engines and gas boilers, with electrically powered equivalents, such as electric vehicles or heat pumps that can source energy from renewable sources such as solar and wind.
Energy assessment	Detailed analysis of an individual's or organisation's energy use and consumption patterns. It helps identify areas where savings can be made and measures that can be implemented to improve energy efficiency and reduce consumption.
Energy efficiency	The ability of a system, process, or product to operate with minimal wasteful expenditure of resources such as electricity. It is often used as a benchmark for environmental sustainability.
Feed in tariffs	Financial incentives designed to encourage individuals and businesses to generate electricity from renewable sources such as solar, wind, or hydroelectric power.
Gas appliances	Devices that use natural gas (methane) for heating, cooking, or powering electrical systems.
Greenhouse gases	Gases that trap heat in the atmosphere. The main gases responsible for the greenhouse effect include carbon dioxide, methane, nitrous oxide, and water vapor. Some gases are more effective than others at making the planet warmer and each of these gases can remain in the atmosphere for different amounts of time, ranging from a few years to thousands of years.
Heat island	The term is used to describe urban areas where land surfaces absorb more solar heat during the day than rural areas, leading to increased air temperatures and reduced evaporative cooling at night. This can also result in higher summer temperatures in urban areas compared to rural areas.

Glossary and Acronyms

Heat pump hot water systems	Heat pump water heaters use electricity to move heat from one place to another instead of generating heat directly. Therefore, they can be two to three times more energy efficient than conventional electric resistance water heaters. To move the heat, heat pumps work like a refrigerator in reverse. For more information visit energy.gov
Induction stoves	Induction stoves use magnetic fields to generate heat. They are energy-efficient and can reach high temperatures quickly.
Internal combustion vehicles	Cars, trucks, buses, and other motor vehicles that use the burning of fossil fuels (petrol, diesel, gas) to produce mechanical power.
Internal thermal mass	The capacity of a building's materials to store heat, which can help regulate the indoor temperature and reduce energy consumption from heating or cooling systems.
Kilowatt hour (kWh)	The unit of measure for the amount of energy consumed or produced in one hour, equal to 1000 watts. In the context of electricity usage, it is commonly used as a unit of measurement for electricity consumption and production.
Kitchen Caddy	Reusable storage container shaped like a small basket for collecting food scraps which can then be placed in the green organics bin.
Methane	Also known as natural gas, its colorless and odourless and is a potent and fast-acting contributor to climate change, as it traps heat in Earth's atmosphere and causes global warming.
Novated leasing programs	A leasing program where employees have their vehicle payments deducted from their pre-tax income through their employer's payroll system. This reduces the taxable income for the employee, resulting in potentially lower income tax liabilities.
Organic material	Any naturally occurring substance that has been decomposed from a living organism or derived from such decomposition.

Glossary and Acronyms

Per passenger kilometre	A unit of measure used to describe the environmental impact of transportation methods, calculated as the emissions produced per kilometre travelled by each passenger on a vehicle.
Permeable and porous surfaces	Surfaces designed to allow water to pass through them, either naturally or artificially engineered, which can improve water management, reduce flooding risks, and contribute to a more sustainable urban environment.
Producer responsibility	A concept in environmental regulation where manufacturers or producers are held accountable for the full lifecycle of their products, including design, production, use, and disposal. This can include taking back and recycling products at end-of-life, using sustainable materials, and implementing energy efficiency measures.
Red Cross Neighbour Card	Template to fill in your details and drop in your neighbour's letterbox offering to connect.
Repair café	An event or initiative where individuals can bring their broken or malfunctioning devices for repair by skilled technicians or volunteers, often with the aim of reducing waste and promoting responsible consumption and maintenance of devices.
Solar photovoltaic	A solar photovoltaic (PV) system uses solar energy to generate electricity by converting the sun's light into direct current (DC) power that can be used directly to charge batteries or power electrical appliances and equipment.
Thermal performance	The efficiency with which a building or structure transfers heat between its interior and exterior environments. Improving thermal performance often involves using better insulation materials, air sealing techniques, and efficient heating and cooling systems.

Glossary and Acronyms

Tree canopy	The layer of foliage covering the canopy of a tree or forest, which provides shade, habitat, and other ecological benefits. A dense and intact tree canopy is crucial for reducing urban heat island effects by increasing soil evaporation and transpiration, as well as providing natural cooling through the evaporative cooling effect.
Urban Heat and Tree Mapping interactive map	An interactive map that visualizes the urban heat island effect by displaying the distribution of tree canopy coverage, vegetation, and other green spaces in a city, helping to mitigate the urban heat island effect by increasing the city's ability to absorb and radiate heat.
Vehicle-to-Grid (V2G)	Enables electric vehicles to send power back to the grid during times of high demand, helping to stabilize the grid and reduce peak load demands on the infrastructure.
Vehicle-to-Home (V2H)	Electric vehicles can transfer electricity back to homes or other buildings, potentially enabling energy storage and sharing among multiple users.
Water diversification	The practice of managing water resources by allocating them among different uses and users in a way that balances competing demands and minimizes potential conflicts. It may involve desalination, recycling, or other innovative solutions to ensure water security.