



Wattle Range
COUNCIL

CLIMATE CHANGE ACTION PLAN

July 2022

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What is Climate Change?

Climate change refers to long-term changes in the Earth's temperatures and weather patterns. Some causes of Climate Change are natural, such as variations in the Earth's solar cycle, however since the 1800's human activities have resulted in increasing greenhouse gas emissions being trapped in the Earth's atmosphere and this is now the main driver of Climate Change^{iiiiiv}.

Changes in global surface temperature relative to 1850–1900

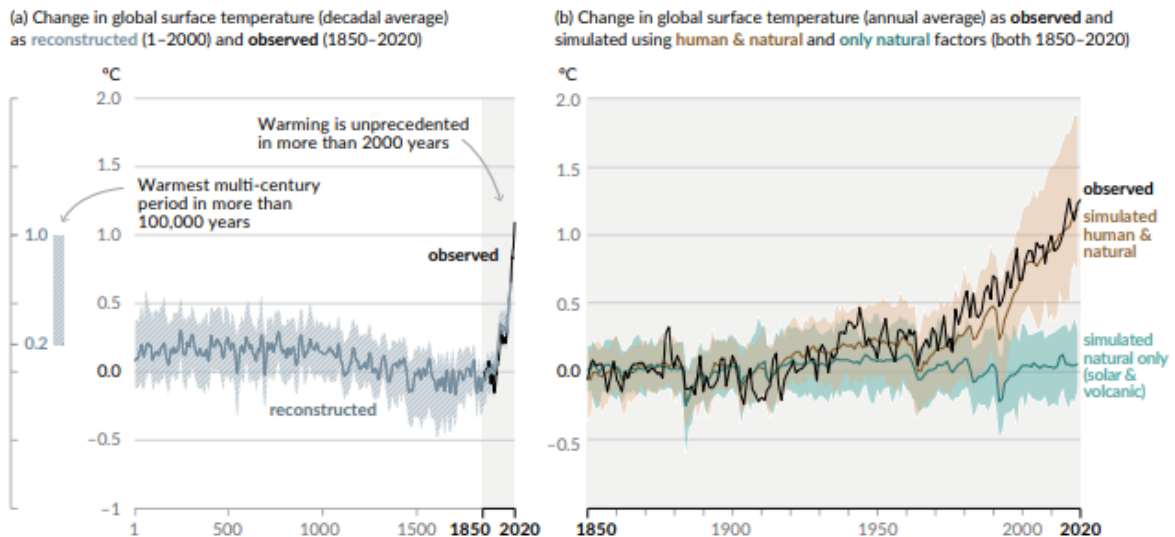


Image 1: Intergovernmental Panel on Climate Change, *Climate Change 2021 The Physical Science Basis (Summary for Policymakers)*

What do we know about how Climate Change will affect the Wattle Range region?

In 2016, the Limestone Coast Local Government Association (LCLGA) partnered with Regional Development Australia Limestone Coast (RDALC) and the Southeast Natural Resources Management Board (now the Limestone Coast Landscape Board) to investigate how Climate Change is likely to impact the Limestone Coast region and to identify priorities for adaption across the region. Through this partnership, the Limestone Coast Regional Climate Change Adaption Plan was developed. This plan provides a forecast of climate change impact to the Limestone Coast region as summarised in the following image and table:

CHANGES IN OUR CLIMATE BY 2070

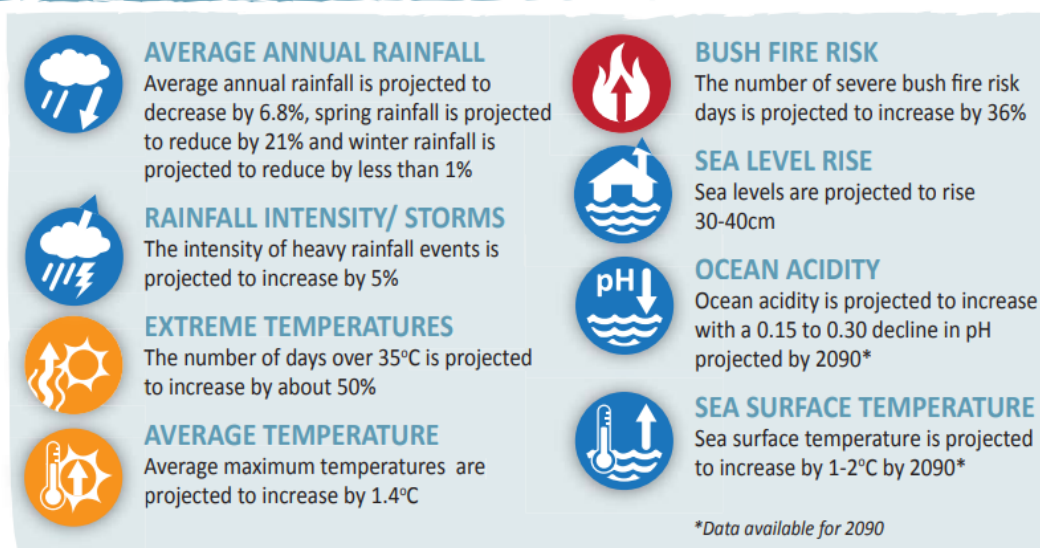


Image 2: Changes in our Climate (Limestone Coast Region) by 2070, Limestone Coast Regional Climate Change Adaption Plan 2016

Climate variable	Type of change projected	Current	Projected (2070)
Extreme heat	Increased frequency and intensity	6 days >35°C 1 days >40°C	10.5 days >35°C 2 days >40°C
Bushfires	Increased frequency and intensity (Fire danger rating "severe")	1.6	2.6
Annual temperature	Warmer annual (1.4oC increase)	19°C	20.4°C
Summer temperature	Warmer summer (1.3oC increase)	24.5°C	25.8°C
Autumn temperature	Warmer autumn (1.3oC increase)	19.6°C	20.9°C
Winter temperature	Warmer winter (1.2oC increase)	13.7°C	14.9°C
Spring temperature	Warmer spring (1.6oC increase)	18.1°C	19.7°C
Annual rainfall	Drier (6.8% reduction)	711 mm	662 mm
Rainfall summer	Drier summer (9.5% reduction)	91 mm	83 mm
Rainfall autumn	Drier summer (3.8% reduction)	161 mm	155 mm
Rainfall spring	Drier spring (20.5% reduction)	180 mm	143 mm
Rainfall winter	Wetter winter (0.7% increase)	278 mm	280 mm
Rainfall intensity	Increased intensity (7% increase)	--	--

Table 1: Climate projections for Mount Gambier in 2070, intermediate emissions^v

The calculations used to come up with these projections were based on an intermediate (emissions) concentration pathway (RCP4.5) with data sourced in 2016 from the Intergovernmental Panel on Climate Change (IPCC) AR5 Report produced in 2014.

Since then, the IPCC AR6 Report has been released which provides an updated and an alternate methodology to simulate future climate change, using further scientific data becoming available since the 2014 AR5 report. The AR6 report presents projected climate impacts based on five different scenarios determined by the shared socio-economic context of the world. A "middle of the road" approach (similar to the intermediate approach that was used for the 2016 calculations)

would place our projections in an SSP2 or SSP3 narrative. Modelling of these two scenarios indicates an average global warming of between 2.1-4.6°C by year 2100^{vi} (with 2070 warming estimated at 2.67-3.09°C^{vii}). The previous RCP4.5 projections indicated an average global increase of between 1.71-3.21°C by 2100. Therefore, it is likely that the projections previously made for the Limestone Coast require updating and the variances in average climate conditions will change. Subsequently the 2016 projections outlined in the Limestone Coast Regional Climate Change Adaption Plan can be considered a conservative change for our region until such time that projections are updated.

Our Achievements so far

Wattle Range Council (Council) has always recognised the environmental diversity of our region. Council understands the importance of protecting the local environments that underpin our economic industries and general lifestyles and 'Environmental Sustainability' is one of the five themes of Council's ongoing strategic planning.

A timeline of Council's activities undertaken to protect the local environment is outlined below, which commenced in 2010 with Council's first General Environmental Policy to show its commitment to achieving a Healthy Environment and integrating environmental considerations with economic, social and cultural factors:

- 2010 Council adopted its first General Environmental Policy
- 2011 Tree Management Policy
- 2013 Beachport Beaches Sand Management Plan
- 2015 Rivoli Bay study
- 2015 Lake George study
- 2017 Procurement Policy
- 2017 Beachport Sand Management Plan
- 2017 Beachport Boat Ramp Maintenance Options
- 2019 Southend Adaptation Strategy
- 2021 Rivoli Bay Data Collection and Modelling Summary Report
- 2021 Climate Change Action Working Group formed
- 2021 Emissions audit undertaken on Council's operations

Current political context

The Australian Government's [Long-Term Emissions Reduction Plan](#) sets a goal to achieve net zero emissions by 2050

The South Australian Government, through its [Climate Change Action Plan 2021-2025](#) has set goals to reduce South Australia's greenhouse gas emissions by more than 50% below 2005 levels by 2030, and to achieve net zero emissions by 2050.

Whilst there are several South Australian Local Governments who have adopted Climate Change Adaption Plans, there are only a handful of Council that have set clear, measurable targets to reduce emissions. Some examples are listed in the following table:

Local Government Entity	Emissions Reduction Target
City of Adelaide	To make Adelaide the world's first carbon-neutral city ^{viii}
City of Unley	Carbon neutral operations by 2023 ^{ix}
City of Charles Sturt	50% emissions reduction based on 2017/18 levels by 2025 Net zero corporate emissions by 2023/24 ^x
City of Holdfast Bay	To become a carbon neutral council by 2030 ^{xi}
City of Marion	To have carbon neutral operations by 2030 ^{xii}
City of Mitcham	To achieve net zero emissions by 2050 ^{xiii}
Mount Barker District Council	3% annual reduction in emissions (both community and corporate emissions) ^{xiv}

Table 2: Examples of South Australian Councils that have set emissions reduction targets as at January 2022

Current emissions context for Wattle Range Council

The Wattle Range Council region is primarily an agricultural region, and this is reflected in the region's emissions, which are predominantly from agriculture (74%) and transport (18%) sources. As a nation, Australia's total proportion of emissions from Agriculture is 14.6%^{xv}

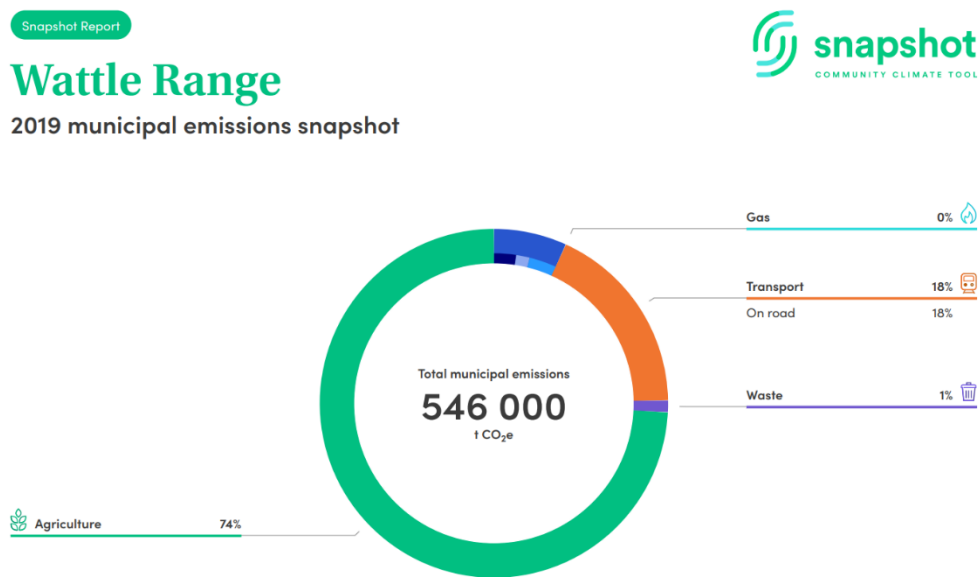


Image 3: 2019 Snapshot of Wattle Range Council's greenhouse gas emissions^{xvi}

Current emissions of the Wattle Range Council

In 2021, Council resolved to undertake an emissions audit to measure the greenhouse gas emissions directly attributed to Council's operations and to use as the basis of this Climate Change Action Plan.

It is important to note that the data used to measure Council's emissions was taken from the 2020-2021 financial year. The Council's operations were moderately impacted by the worldwide Covid-19

pandemic, particularly with regard to air travel. The emissions audit identified that fuel consumption is by far the Council's leading contributor to greenhouse gas emissions.

Figure 1: Breakdown of Wattle Range Council's GHG Emissions, FY2021

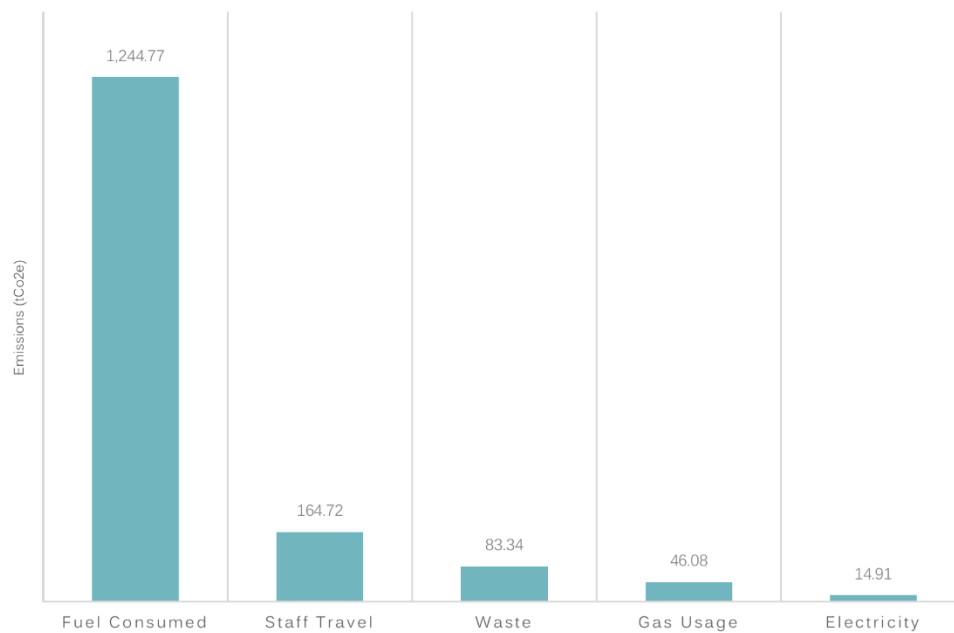


Image 4: Wattle Range Council's Greenhouse Gas Emissions by Source^{xvii}

Wattle Range Council's Emissions Reduction Commitment

It is somewhat expected for Council's leading source of emissions to be linked with vehicle, equipment and machinery usage, as plant usage is critical in the performance of many Council's core functions, such as road maintenance, parks and garden maintenance and waste management. Council currently has a fleet of 118, including light vehicles, a variety of plant such as trucks, rollers, graders, excavators and smaller mobile equipment such as mowers.

Council has already commenced replacing some of its diesel fueled vehicle fleet with hybrid vehicles as they fall due for renewal, however this technology does not yet exist or is not yet viable for the other heavy plant and equipment that Council uses. Council is therefore committed to continuing trialing and implementing electric and hybrid vehicles, plant and equipment whenever the opportunity arises.

Council will commit to achieving a 100% electric/hybrid light vehicle fleet and 80% renewable energy for our buildings by 2030

Council will make a commitment to include the actions identified in this plan in its ongoing Annual Business Plans and associated budgets

Council will commit to auditing its emissions and reviewing this plan every 4 years to ensure its actions remain adequate and are achieving a measurable difference.

The Action Plan

The below actions have been identified by the Wattle Range Council Climate Change Working Group. The actions have been sorted based on the council's strategic themes and prioritized (A to C) to address the areas that will most impact the Council's current emissions.

Theme 1 – Community Vibrancy and Presentation

Objective: Generate and support community vibrancy through advocacy and maintenance of community services and enhanced public facilities.

Action	Role of Council	Priority	
1.1	Install an electric car charging station in a suitable location that can be utilized by Council staff and the public	Lead	A
1.2	Trial the use of uniform/standardized rechargeable, battery-operated equipment and tools such as chainsaws, whipper snippers in Council's parks and gardens team etc.	Lead	A
1.3	Educate households, businesses and schools on waste reduction ideas to enable the goal of reducing red bin collection frequency: <ul style="list-style-type: none"> - Wrap Council's existing truck and trailer fleet with waste education messaging - Provide a series of Workshops to the public, educating on the simple changes that can be made in the household to assist with climate change mitigation such as Composting at home; Tour of a waste facility; Homemade cleaning and beauty products; Home brewing; DIY beeswax wraps Provide some 'How to' videos on the Council's website, demonstrating simple waste reduction practices such as composting, food preserving etc	Lead	A
1.4	Procure recycled public space furniture, fencing and decking materials from emerging local recyclable producers to encourage local investment into R&D, reduce waste transportation costs and enhance the circular economy.	Lead	A
1.5	Where suitable, grow more trees in town centres, ensuring a balance of edible varieties such as fruit and nut trees (bush tucker) and varieties that have a canopy cooling effect in summer; Mulch and compost garden beds with locally produced products; and educate the community on climate appropriate trees and plants for the Wattle Range Region	Lead/Advocate	A
1.6	Implement a minimum of three-bin waste disposal system in all Council administration buildings with associated information board to assist with education and training	Lead	B

1.7	Liaise with SA Power Networks for an accelerated transition to LED street lighting and consider self-funding the transition in those locations where a business case supports it.	Advocate/Partner	B
1.8	Invest in bin toppers and develop an Events Waste Management guideline for best practice. Make the use of the bin toppers and guideline a condition of Council for any Council-funded events or events held on Council land.	Partner	B
1.9	Host a competition that promotes gardening practices in line with climate change mitigation. E.g., categories for: Growing fruits and vegetables Growing native species	Lead	C
1.10	Provide additional shades for community facilities including pathways. Consider natural shade i.e., street trees.	Lead	C
1.11	Investigate ways to support the community especially vulnerable people (aged, disabled) during extreme weather events. (water points in library and VICs)	Advocate	C
1.12	Educate households on the environmental benefits of biogas and electricity in comparison to gas and encourage households to make the switch.	Advocate	C
1.13	Annual competition or grant for innovative food growing.	Lead	C
1.14	Partner with PIRSA to promote stock feed supplement options to reduce methane gas emissions; and investigate recycling and alternative biodegradable fodder wrapping options.	Advocate	C
1.15	Advocate for more trees to be planted on farms	Advocate	C

Theme 2 – Economic Prosperity

Objective: A sustainable and prosperous economy that supports local businesses and industry and creates employment and prosperity for the region.

Action		Role of Council	Priority
2.1	Develop a network of bike paths within major townships to encourage walking and cycling in lieu of motor transport.	Lead	A
2.2	Refer to the National Electric Vehicle Strategy and liaise with electric car charging station providers to determine whether Council would like to invest in vehicle charging stations at strategic tourism hotspots and or staff locations to maximise benefits to Council and the wider community	Partner	A
2.3	Actively encourage local businesses to remove single use plastics from their operations prior to the upcoming bans.	Advocate	A
2.4	Reinvigorate the “Buy Local” campaign and identify a suitable app for local businesses to use to promote their locally made goods and benefits such as:	Partner	B

	<ul style="list-style-type: none"> - reducing transport emissions - community gardens - reducing packaging - farmers markets. 		
2.5	Advocate for increased investment in biomass power generation and investigate options to divert waste streams and in particular green waste into emerging biomass technology.	Advocate	C
2.6	Build partnerships with Industry to lower the region's emissions: <ul style="list-style-type: none"> - Organise a Recycling Innovation competition to encourage development in this sector. - Encourage the development of a circular economy that recycles rubber, glass and plastic waste streams into road base material through regional collaboration and private investment. - Engage with key stakeholders and build public awareness 	Advocate	C
2.7	Advocate for and actively encourage investment in Renewable Energy projects within the region.	Advocate	C

Theme 3 – Environmentally Sustainable

Objective: Protect the natural assets and infrastructure of the region by leveraging additional environmental programs that will protect the environment for future generations

Action		Role of Council	Priority
3.1	Continue to implement the Southend Adaptation Strategy	Partner/Advocate	A
3.2	Review kerbside waste collection frequency and three-bin collection locations to encourage a higher level of composting and recycling and reduce transport costs.	Lead	A
3.3	Plan and budget for long term coastal adaption requirements resulting from the impacts of climate change. Investigate ways to protect and defend our coastal communities and environments	Partner	A
3.4	Investigate opportunities for re-use/re-sale of hard waste collected at the Waste Transfer Station.	Partner	B
3.5	Advocate for the LCLGA to host a Climate Change Response summit with neighbouring Councils and stakeholders to share ideas and address some actions at a larger, regional level	Partner	B
3.6	Advocate for the restoration of degraded forests, wetlands and farming land when the opportunities arise.	Advocate	C
3.7	Plan and advocate for the expansion of natural forests through a combination of: <ul style="list-style-type: none"> - Identifying potential land areas where biodiversity corridors can be created and linked (e.g., Gondwana Link in WA) 	Advocate	C

	<ul style="list-style-type: none"> - Identifying any potential land use changes to support expansion and advocate - Encouraging private reforestation - Encouraging and supporting community-led action 		
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Theme 4 – Infrastructure & Asset Sustainability

Objective: Provide functional, safe, fit for purpose assets that meet the changing needs of the community

Action		Role of Council	Priority
4.1	Council to achieve a 100% electric/hybrid light vehicle fleet by 2030	Lead	A
4.2	Council to achieve 80% renewable energy for its buildings by 2030	Lead	A
4.3	Investigate the feasibility of Council owned and operated composting facility to be co-located at the Millicent Saleyards	Lead	A
4.4	Investigate and implement climate change resilient asset management materials and practices, including but not limited to a risk assessment of the impact of Climate Change to Council infrastructure. Maintain a watching brief on alternative power sources for plant and equipment (e.g., hydrogen) and partner with other stakeholders to trial emerging technology	Lead	A
4.5	Look at options for monitoring weather in townships, increased/decreased rainfall, temp for forward planning and reporting.	Advocate	A
4.6	Investigate the viability of installing solar panels (or other green energy) and batteries on Council owned buildings	Lead	A
4.7	Encourage higher energy standards for new construction (northwards orientation, top rate insulation, double glazing, no gas, high thermal rating, solar panels) and lead by example in Council led projects	Advocate	B
4.8	Advocate for increased public and private shared transport options in the Wattle Range region	Advocate	B
4.9	Source zero-emission materials for concrete and paving.	Lead/Partner	C

Theme 5 – Organisational Excellence

Objective: A great place to work where innovation and efficiency is expected, and customers are our focus

Action		Role of Council	Priority
5.1	Investigate grant funding opportunities to assist with funding the actions identified in this plan	Lead	A

5.2	Develop a Council budget line for climate change actions.	Lead	A
5.5	Promote the Wattle Range Council as a Leader in Climate Action by: <ul style="list-style-type: none"> - Provide regular input into Mayor's newsletter/ PR releases. - Provide recognition to Council employees who contribute to the reduction of waste. Offer sponsorship of Recycler of the Year award at local schools.	Advocacy	A
5.10	Ensure that the Climate Change Advisory Group continue to meet each year in April to review progress against this plan and report back to the Council	Lead	A
5.4	Develop an annual information booklet and/or online presence - possibly mailed out with rates notice which addresses a particular educational theme each year related to climate action. For example, the local cycle routes and the benefits of cycling; or local, native bush tucker for your garden; or what are the basics for keeping chickens; or how to phase out plastic in the home	Lead	B
5.6	Reassess all policies with the umbrella of Climate Change, particularly: <ul style="list-style-type: none"> - Ensure procurement policy allows for weighting of environmental costs to that of economic costs - Reduce face to face meetings that require travel and have more online meetings (reduce emissions) 	Lead	B
5.8	Advocate to the LGA for divestment in Fossil Fuels, look at banking, insurance, default superannuation company and divest where their investments are in fossil fuel industries.	Advocacy	C
5.9	Collaborate with other/similar Councils on emission reduction strategies.	Lead/Advocate	C

Our commitment

Council will continue to strive for best practice and achieving efficiencies in all its operations, and environmental best practice is no exception.

Council will commit to achieving the target outlined in this plan, being to achieve a 100% electric/hybrid light vehicle fleet and 80% renewable energy for our buildings by 2030

Council will make a commitment to include the actions identified in this plan in its ongoing Annual Business Plans and associated budgets

Council will commit to auditing its emissions and reviewing this plan every 4 years to ensure its actions remain adequate and are achieving a measurable difference.

Appendices

Appendix I: Carbon Reduction Institute, 2021, *Low CO2 Audit – Wattle Range Council* (See attached)

Endnotes

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- ⁱ [Intergovernmental Panel on Climate Change: Climate Change 2021 The Physical Science Basis;](#)
 - ⁱⁱ [United Nations: Climate Action;](#)
 - ⁱⁱⁱ [Australian Academy of Science: Are human activities causing climate change?;](#)
 - ^{iv} [NASA: The Causes of Climate Change;](#)
 - ^v [Limestone Coast Regional Climate Change Adaption Plan](#)
 - ^{vi} [Intergovernmental Panel on Climate Change: Climate Change 2021 The Physical Science Basis \(Summary for Policy Makers\);](#)
 - ^{vii} [Carbon Brief: Explainer: How ‘Shared Socioeconomic Pathways’ explore future climate change](#)
 - ^{viii} [Carbon Neutral Adelaide: Action Plan 2016 - 2021](#)
 - ^{ix} [City of Unley: Climate and Energy Plan 2021](#)
 - ^x [City of Charles Sturt: Net Zero, Our Map to Net Zero Corporate Emissions 2020-2025](#)
 - ^{xi} [City of Holdfast Bay Environment Strategy 2020-2025](#)
 - ^{xii} [City of Marion Carbon Neutral Plan 2020-2030](#)
 - ^{xiii} [City of Mitcham: Getting Climate Ready](#)
 - ^{xiv} [Mount Barker District Climate Change Action Plan 2019](#)
 - ^{xv} [CSIRO: What are the Sources of Australia’s Greenhouse Gases?](#)
 - ^{xvi} [Snapshot Climate 2019-2020 for the Wattle Range Council area](#)
 - ^{xvii} Carbon Reduction Institute: Low CO2 Audit – Wattle Range Council (Appendix I)