

Climate Change Action Plan

Strathbogie Shire Council
2022 - 2027

Acknowledgement of Country

We acknowledge the traditional custodians of the lands on which we strive, the peoples of the rivers and the hills of the Strathbogie Shire region who walked these lands for generations.

We pay our respects to the elders of the past, and the speakers of the first words, who lived in harmony with this country.

We acknowledge the elders of the present, who seek to regain their culture, and to teach the elders of the future their law, their history, and their language.

We pay our respects to them and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

We honour their spirit – and the memory, culture, art, and science of the world's oldest living culture through 60,000 years.

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Introduction

On 22 April 2021 Strathbogie Shire Council declared a climate emergency. This wasn't the first step in responding to our changing climate but merely the next step in our journey.

In August 2019 Council adopted the Sustainable Strathbogie 2030 Plan which outlined ambitious plans to reduce emissions and prepare our community for their changing climate.

Other areas where we have led the way include the Bogie Bulk Buy which exceeded half a megawatt of installations and inspired other local governments in Victoria and NSW to undertake similar programs.

In 2015 the Strathbogie Shire Council made an ambitious decision to introduce a weekly food and organics collection and was one of the first Council's in Victoria to do so. This has led us to be consistently placed in the top two Councils in Victoria for diversion of waste from landfill.

In 2021 we signed onto the Victoria Energy Collaboration with 46 other Victoria Councils to source 100% of our Council electricity from renewable sources. This has meant that we have reduced our corporate emissions by one third.

With this Climate Change Action Plan, we intend to continue to be leaders in this space. The overarching theme of this plan with ensure that we:

- Embed climate emergency responses into all Shire activities and decisions
- Accelerate the Shire's climate change adaptation and mitigation actions to the speed and scale required to address the Climate Emergency
- Direct the Shire's efforts to engage and empower the local community and business to foster cultural shifts, so that ongoing climate action becomes the new standard
- Assist and support a just and fair transition to a prosperous decarbonised economy
- Create and enhance collaboration and partnership opportunities between the Shire, community and the broader Climate Emergency movement to amplify action and coordinate advocacy.

Our legislative requirements

Councils are responsible for meeting various legislative obligations related to mitigating and adapting to climate change impacts.

Local Government Act 2020

The Victorian *Local Government Act 2020* sets a clear expectation that the long- term negative impacts of climate change on future generations are considered in Council planning, decision-making and actions.

In the course of performing our role we must give effect to overarching governance principles including promoting environmental, social and economic sustainability, mitigating

and planning for climate change risks, and achieving the best outcomes for our community, including future generations.

Climate Change Act 2017

The Victoria Climate Change Act 2017 aims to drive our state's transition to a climate resilient community and economy, and outlines guiding principles to assist Council in assessing the suitability of our decision-making in light of climate change.

The Act requires us to consider climate changes (including potential impacts and contributions to Victoria's greenhouse gas emissions) through the development of our *Municipal Public Health and Wellbeing Plan*. The Act also calls on Councils to provide a five yearly emissions reduction pledge. This Climate Change Action Plan represents Strathbogie Shire Council's emissions reduction pledge.

Planning and Environment Act 1987

The Victoria *Planning and Environment Act 1987* provides the framework for the use, development, and protection of land in Victoria for the present and long-term interests of all Victorians.

Subordinate instruments of the Act (including the Victoria Planning Provisions and all planning schemes in Victoria) contain the Planning Policy Framework. This incorporates various state-wide planning policies on climate change and its impacts which planning must take into account and give effect to in the course of decision making.

Glossary

Term	Meaning
Adaptation	Adjusting to the process of adjusting to current or expected climate change and its effects.
Business as usual	A projection based on the assumption that all existing policy measures remain in place with no new measures introduced.
Canopy cover	The proportion of land area occupied by the tree's crown or canopy, or combined canopies, when visualised from directly above. It is often expressed as a percentage of total area covered.
Carbon Neutral or net zero	Where an individual or company's carbon emissions are effectively reduced to zero through efforts such as reducing energy consumption, using renewable energy, and offsetting the remainder by purchasing carbon offsets
Carbon Offsets	This is a unit of carbon dioxide- equivalent (CO ₂ e) that is reduced, avoided or sequestered to compensate for emissions elsewhere. A carbon offset usually represents one tonne of CO ₂ e.
Energy efficiency	Using less energy to achieve the same output.
Greenhouse Gas Emissions	Gases that trap heat in the atmosphere. Greenhouse gases from human activities are the most significant driver of observed climate change since the mid-20 th century.
Mitigation	Taking actions to reduce the impact on the environment, as well as contribution to climate change action
Recycled Water	Energy from resources which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves and geothermal heat.
Renewable Energy	Former wastewater (sewage or otherwise used water) that has been treated to remove solids and impurities and used for non-potable water needs, rather than discharged into waterways.
Resilience	The ability to anticipate, prepare for, and respond to hazardous events, trends or disturbance relating to climate.
Urban heat island effect	Cities are often warmer than rural areas because vegetation is replaced on a large scale with hard structure, such as pavements, bitumen and buildings, which absorb and release more heat than the natural landscape.
Water sensitive urban design	A design approach which integrates the urban water cycle in urban design to reduce environmental degradation and improve aesthetic appeal.



Our Changing Climate - what will it mean for us?

Strathbogie Shire encompasses 3302 square kilometres of unique landscapes, from rugged granite outcrops in our east, and the wide-open plains of the north-west, across the dry, Box Ironbark forests in our south-west, and the Goulburn River -the major tributary of the Murray River- and associated wetlands of the Nagambie district.

However, the land surface area where we live and work is over double the reported horizontal surface area, at 7430 square kilometres of often steep, rugged land, especially within our treasured Strathbogie Ranges.

The Shire of Strathbogie embraces more than 1,550 businesses over 20 industry sectors who support over 10,000 residents who call this Shire home. Our people and the environment sustain over \$56.1 million in tourism income each year.

However, as has been the case for more than 150 years, it is the agricultural sector and the businesses that support and depend on those farms, which still form the backbone of our local economy. Agriculture and supporting business equate to around 30 per cent of our Shire's prosperity and employment – some \$277 million annually, and well over 1,000 jobs.

Maximum and minimum daily temperatures will continue to increase over this century and by the 2030s, increases in daily maximum temperature of 0.9 to 1.8 degrees are expected.

- Rainfall will continue to be very variable over time, but over the long term it is expected to continue to decline in winter and spring and autumn
- Extreme rainfall events are expected to become more intense on average through the century but remain very variable in space and time
- By the 2050s our climate could be more like the current climate of Griffith, NSW.

Figure one shows the impacts if emissions continue to increase.

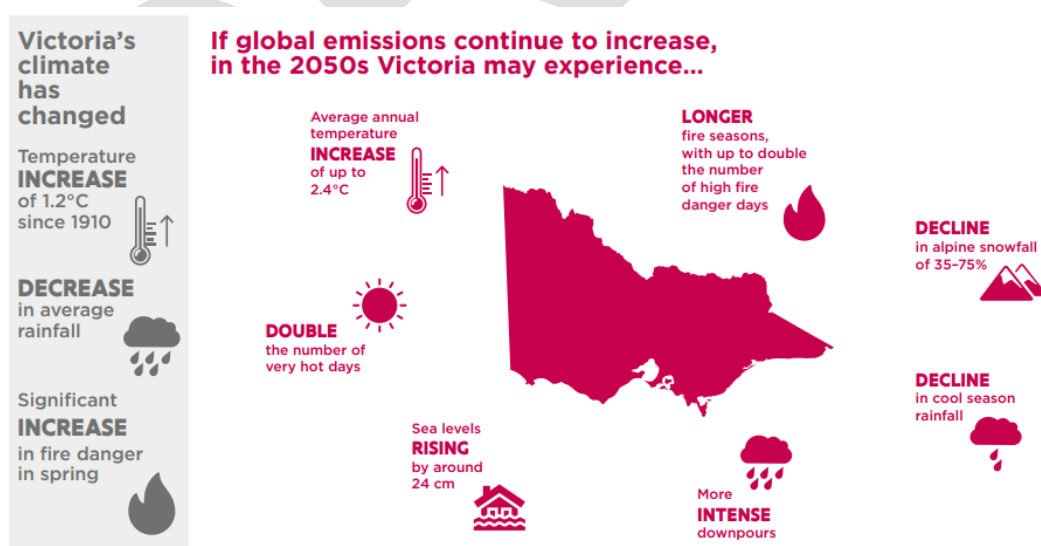


Figure 1. Impacts if emissions continue to increase ¹

¹ Source: https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0026/521297/Victorian-Climate-Change-Strategy.pdf

Below Council presents its Climate Change Action Plan to help our Council and Community prepare for the climate changes we are expecting. Each section will outline which actions will impact only on internal Council operations and which will have a more wide-ranging impact on our communities.

In partnership with the community, Council will start implementing the Action Plan in 2022-2023. Council will report annually on the key achievements, highlights and challenges for the implementation of programs. These updates and lessons learnt will be shared with the community in Councils' Annual Report. Through ongoing monitoring Council will review the uptake and effectiveness of specific actions and redirect course if necessary. This will allow Council and community to ensure that resources are used effectively to achieve the best outcome.

This Action Plan has been split into five main areas with Corporate and Community actions for each target area. The areas are:

1. Protecting our natural environment
2. Reducing our emissions
3. Our climate resilient community
4. Moving sustainably
5. Advocating for change

The first four sections of this plan outline actions where Council can influence and make real difference in our local area. We know that Climate Change and its implications are not just found at a local government level but across all levels of Government, therefore section 5, Advocating for Change, shows actions that we will take to influence those areas where we are not directly responsible.

Across each of these Strategic Focus Areas Council, residents, businesses, farmers and community groups have different roles to play in driving climate action.

By working together and taking a partnership approach we can build a climate resilient, net zero community.

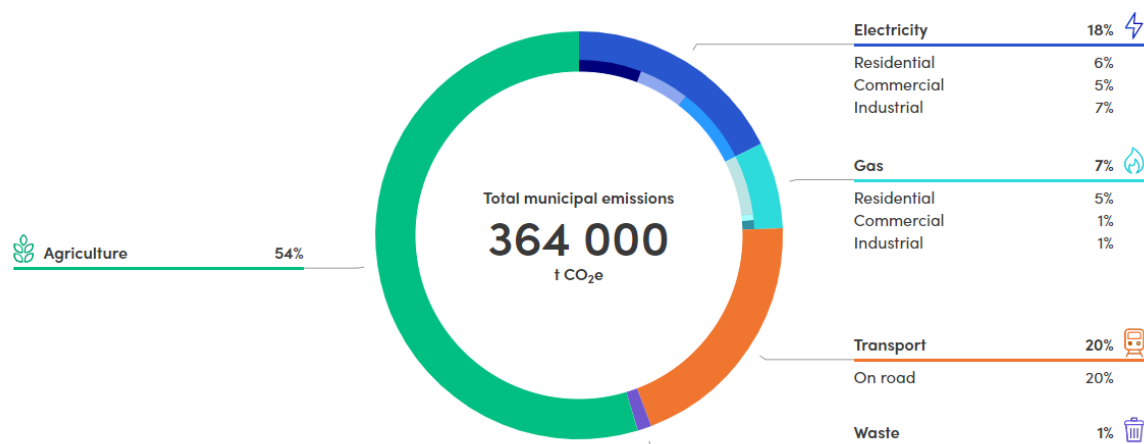
Municipal Emissions Snapshot

Strathbogie Shire Councils Community emissions profile is derived from Snapshot, currently the only online tool providing estimated emissions profiles for all municipalities in Australia.

The data is developed according to the Global Protocol for Community-Scale Greenhouse Gas Inventories (GPC) from a broad range of top down or state level data on greenhouse gas emissions and emissions sources.

Because the data behind the emissions is not currently at our local level, it is not suitable to use for a benchmark for Community emissions reduction target that will be monitored and reported against.

This emissions profile shows the estimated total emissions of greenhouse gases and sources of these emissions within the Strathbogie community.



Community emissions sources include non-residential buildings, residential buildings, transport, industrial and agricultural activities, and landfill waste.

The Strathbogie community released approximately 364 000 tonnes of CO2e in 2019. The largest source of emissions is agriculture, accounting for 54 per cent of all community emissions.

The second largest source of emissions is electricity, generating 18 per cent of the total profile.

Working with our Community

Without the support of community, we would not be able to deliver this Climate Change Action Plan. The following groups support this plan:

Targets – Net Zero by 2025

After implementing abatement actions through this Climate Change Action Plan we can target a net zero emissions (NZE) goal by 2025.

Much of this can be gained through the addition of renewable energy, capping legacy landfill, and transitioning our fleet.

A co-benefit of taking action (such as investing in solar, changing plant machinery, street-lighting changeovers, purchasing hybrid vehicles etc) is the savings of energy and fuel costs which go to maintain community built, recreational, and infrastructural environments.



Protecting our natural environment

Our community has told us that their natural environment is important to them and is one of the reasons why they love living in Strathbogie.

Improving soil health and sequestering carbon in soil is a mutually beneficial system of reducing agricultural emissions while offering important co-benefits that help farmers and their land adapt to a changing climate.

Not only does this provide increased productivity on farms, but it also improves the resilience and robustness of farms to climate induced stressors. By increasing soil organic carbon in depleted cropland and modified pasture soils, soil fertility, water retention and hydrological function is increased.

While there are various ways in which this can be achieved, the fundamentals of carbon farming are centred on the concept of ensuring organic compounds that have previously absorbed atmospheric CO₂ remain in Australia's largest carbon sink: the soil.

This section will look at how we can protect our natural environment – in both our urban and rural environments.

No.	Action	Area of responsibility	Section	Action year	Cost
1	Update Roadside Management Plan to reflect best practice for protecting biodiversity.	Corporate – Environment and Waste	Protecting our Natural Environment	2022/23	\$
2	Every five years update the Roadside Conservations Values Assessments.	Corporate-Environment and Waste	Protecting our Natural Environment	2023/24	\$\$
3	Continue Conservation Covenant Rate Incentive to lock up carbon and protect biodiversity for landowners who have land registered for a conservation covenant on the Cert of Title and create a Rebate Program to enhance property biodiversity values.	Community - Finance	Protecting our Natural Environment		\$
4	Plan for replacement of all vacant tree sites in our urban areas over the next five years	Corporate - Operations	Protecting our Natural Environment		\$\$\$
5	Ensure that there is appropriate budget each year to replace all trees that are required to be removed	Corporate - Operations	Protecting our Natural Environment		\$\$
6	Review our current species list for planting to ensure that it still fit for purpose and climate appropriate.	Corporate - Operations	Protecting our Natural Environment	2022/23	\$
7	Develop a Significant Tree Register	Corporate - Planning and Investment	Protecting our Natural Environment		\$

8	Provide access to information on the benefits of retaining native vegetation and biodiversity	Community -Planning and Investment	Protecting our Natural Environment		\$
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Reducing our emissions

Reducing our emissions doesn't just mean reducing the amount of electricity we consume but how we manage all our natural resources including electricity, gas, water and waste.

No.	Action	Area of responsibility	Section	Action year	Cost
9	Report every 12 months on Council's emissions reduction figures	Corporate -Environment and Waste	Reducing our emissions	Annual	\$
10	Water and Electricity: Support households to improve water and energy efficiency in their homes.	Community -Environment and Waste	Reducing our emissions		\$\$
11	Water: Undertake and support water use audits, retrofits, integrate rainwater and water re-use principles into operations and guidelines for Parks and Gardens, recreation areas, toilets, truck wash facilities, street tree watering and other identified users.	Corporate -Operations	Reducing our emissions	2022/23	\$\$
12	Waste: Ensure internal and external capital works contracts and project briefs include planning for construction and demolition waste	Corporate -Project Delivery	Reducing our emissions		\$
13	Waste: Support local groups and businesses engaging in waste reduction projects and events that reduce emissions, and waste going to landfill via the community grant process.	Community -Community and Culture	Reducing our emissions		\$\$
14	Electricity: Determine Council's biggest users of electricity and plan for solar installation at these sites over the next 5 years.	Corporate -Project Delivery	Reducing our emissions	2022/23	\$\$
15	Waste: Prioritise the use of recycled products (this should happen automatically if the cost is less than 10%)	Corporate -Procurement	Reducing our emissions	2022/23	\$
16	Waste: Monitor paper use and implement paper saving measures across the organisation.	Corporate -Digital Innovation and Technology	Reducing our emissions		\$
17	Water: Investigate and trial recycled water options for street trees	Corporate -Operations	Reducing our emissions	2022/23	\$
18	Fuel: Monitor fuel use for plant and continue to implement fuel efficiency measures.	Corporate -Fleet	Reducing our emissions		\$

19	Waste: Investigate low carbon and/or high recycled content concrete and asphalt/emulsion options that can become a standard specification.	Corporate -Operations	Reducing our emissions		\$\$
20	Water: Continue to support Greening Euroa to get it ready to go to tender once funding has been secured.	Community -Environment and Waste	Reducing our emissions		\$

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Our Climate Resilient Community

Climate change is expected to make Strathbogie Shire hotter and drier and to increase the frequency of extreme bushfire weather, damaging storms and flash flooding events. These weather events will continue to negatively effect our community and natural environments and biodiversity.

Creating a community that is prepared for, and can cope with, climate-disasters when they occur will help protect the health and well-being of the local community. It is well documented that a healthy environment is crucial for a healthy community. The natural environment provides a suite of ecosystem services such as soil health, pollination, water filtration and cooling our urban environment. Enhancing the natural environment can ensure the survival of the indigenous plants and animals that reside in and around Strathbogie.

No.	Action	Area of responsibility	Section	Action year	Cost
21	Review and commence the implementation of existing facilities in each major township capable of operating independently to be available to the community during extreme climate events.	Community -Community Safety	Our Climate Resilient Community		\$\$\$
22	Ensure that all new developments consider Water Sensitive Urban Design during the planning process.	Corporate -Asset Planning	Our Climate Resilient Community		\$
23	Development of a 10 year, climate-appropriate, street tree planting plan and budget for the Shire's townships that increases and maintains a combination of street and water sensitive urban design plantings from 15 to 200 per annum by 2022, and that water sensitive urban design and the passive irrigation of street trees be a training priority for the Parks and Gardens team in order to implement best practice water saving techniques across street tree infrastructure in the Strathbogie Shire.	Community -Operations	Our Climate Resilient Community		\$\$
24	Investigate permeable concrete options for footpaths and other uses	Corporate -Operations and Asset Planning	Our Climate Resilient Community	2022/23	\$\$
25	Ensure climate change adaptation is fully considered in Council's risk register and in project and in contract management	Corporate -People and Performance	Our Climate Resilient Community		\$
26	Improve access to reliable, easy to understand climate change data and projections to inform community planning and action	Community -Environment and Waste	Our Climate Resilient Community		\$

27	Provide access to information on current and emerging smart agriculture initiatives to farmers and other relevant stakeholders	Community -Environment and Waste	Our Climate Resilient Community		\$
28	Advocate to local and regional education partners to increase agriculture and land management knowledge, including on whole of property planning approaches, AgTech, precision agriculture, nutrient budgeting and other emerging practices	Community -Environment and waste	Our Climate Resilient Community		\$
29	Support farmers and landowners' access to regional and state government programs such as the Victorian Carbon Farming Program	Community -Environment and Waste	Our Climate Resilient Community		\$



Moving sustainably – Transport

Living in a rural area transport and our ability to get around is important. For us public transport is not always the best or easiest option so we need to explore how we can move more sustainably while maintaining access to services.

No.	Action	Area of responsibility	Section	Action year	Cost
31	New development and precinct plans must include shaded areas to enable active transport including shaded bike and walking paths.	Corporate -Planning and Investment	Moving sustainably		\$
32	Undertake urban heat island mapping in each township and plan planting to increase active transport corridors.	Community -Environment and Waste	Moving sustainably		\$\$
33	Advocate for electric vehicle infrastructure in our local communities.	Community -Communication and Engagement	Moving sustainably		\$\$\$
34	Undertake an 'Active & Connected Cycling Strategy' and review the opportunities and barriers, infrastructure, routes, and social initiatives required for residents and visitors to access a safe and enjoyable cycling lifestyle in Strathbogie Shire.	Community -Asset Planning	Moving sustainably	2022/23	\$\$\$
35	Transition to a fully hybrid passenger fleet by 2025	Corporate -Fleet	Moving sustainably		\$\$
36	Transition to a fully electric passenger fleet by 2030	Corporate -Fleet	Moving sustainably		\$\$\$



Advocating for change

Our influential role as a local government helps us research and shape our local area's environmental potential and performance, but our control is limited.

To achieve our Shire targets, we will continue to engage in, and urge robust, progressive partnerships between all levels of government, the private sector, and the community.

No.	Action	Area of responsibility	Section	Action year	Cost
37	Advocate for and investigate local net zero emissions community energy solutions (e.g., Solar PV, wind power, hydro)	Community -Environment and Waste	Advocating for Change		\$\$
38	Partner with local environment groups to have a screening of environmental films like 2040 at the Community Cinema.	Community -Community and Culture	Advocating for Change		\$
39	List all Climate Change Actions on Councils website which is updated as each action is completed	Corporate -Environment and Waste	Advocating for Change	2022/23	\$
40	Advocate on behalf of our community for a federal Carbon Net zero goal	Community - Communications and Engagement	Advocating for Change		\$
41	Advertise for community members to be on an Environment Reference Group to support the delivery of Council's Climate Change aspirations	Community -Environment and Waste	Advocating for Change		\$
42	Review this plan every 5 years to ensure that it continues to be proactive and embraces best practice opportunities.	Corporate -Environment and Waste	Advocating for Change		\$
43	Establish a Climate Action Steering Committee or Green Team (internal) to guide implementation of new climate actions projects and increase collaboration between lead departments.	Corporate -Environment and Waste	Advocating for Change		\$
44	Institute a revolving energy fund to fund future projects	Corporate -Finance	Advocating for Change		\$\$

45	Continue to support projects and advocacy through the Goulburn Murray Climate Alliance	Corporate -Environment and Waste	Advocating for Change		\$
46	Develop fossil fuel divestment policy options for the consideration of Council and consider community submissions regarding divestment when updating Council's investment policy.	Corporate -Finance	Advocating for Change		\$
47	Include information on Council's climate change response and culture of energy and resource efficiency in staff recruitment and induction processes.	Corporate -People and Performance	Advocating for Change		\$
48	Council recognises the primary interest and knowledge of Taungurung Land and Waters Council in relation to climate change and will work with TLaWC to incorporate this knowledge into Councils Climate Emergency Response	Corporate -Environment and Waste	Advocating for Change	2022/23	\$
49	Advocate for integration ESD principles in the Local Government Infrastructure Design Manual	Corporate -Planning and Investment	Advocating for Change		\$
50	Advocate to the state government to strengthen the planning scheme to protect and enhance the extent of native vegetation	Corporate -Planning and Investment	Advocating for Change		\$

Appendix 1

Year 1 (2022/23) Action Plan

No.	Action	Area of responsibility	Section	Action year	Cost
1	Update Councils current Roadside Management Plan to reflect best practice for protecting biodiversity.	Corporate – Environment and Waste	Protecting our Natural Environment	2022/23	\$
6	Review our current species list for planting to ensure that it still fit for purpose and climate appropriate.	Corporate - Operations	Protecting our Natural Environment	2022/23	\$
11	Water: Undertake and support water use audits, retrofits, integrate rainwater and water re-use principles into operations and guidelines for Parks and Gardens, recreation areas, toilets, truck wash facilities, street tree watering and other identified users.	Corporate -Operations	Reducing our emissions	2022/23	\$\$
14	Electricity: Determine Councils biggest users of electricity and plan for solar installation at these sites over the next 5 years.	Corporate -Project Delivery	Reducing our emissions	2022/23	\$\$
15	Waste: Prioritise the use of recycled products (this should happen automatically if the cost is less than 10%)	Corporate -Procurement	Reducing our emissions	2022/23	\$
17	Water: Investigate and trial recycled water options for street trees	Corporate -Operations	Reducing our emissions	2022/23	\$
20	Water: Continue to support Greening Euroa to get it ready to go to tender once funding has been secured.	Community -Environment and Waste	Reducing our emissions		\$
24	Investigate permeable concrete options for footpaths and other uses	Corporate -Operations and Asset Planning	Our Climate Resilient Community	2022/23	\$\$
34	Undertake an 'Active & Connected Cycling Strategy' and review the opportunities and barriers, infrastructure, routes, and social initiatives required for residents and visitors to access a safe and	Community -Asset Planning	Moving sustainably	2022/23	\$\$\$

	enjoyable cycling lifestyle in Strathbogie Shire.				
39	List all Climate Change Actions on Councils website which is updated as each action is completed	Corporate -Environment and Waste	Advocating for Change	2022/23	\$
48	Council recognises the primary interest and knowledge of Taungurung Land and Waters Council in relation to climate change and will work with TLaWC to incorporate this knowledge into Councils Climate Emergency Response	Corporate -Environment and Waste	Advocating for Change	2022/23	\$