

# MURRINDINDI SHIRE COUNCIL CLIMATE CHANGE ACTION PLAN: TOWARDS 2035



**Murrindindi**  
Shire Council



# CONTENTS

<b>ACKNOWLEDGMENT OF COUNTRY</b>	<b>5</b>
<b>EXECUTIVE SUMMARY</b>	<b>6</b>
<b>OVERVIEW OF THE CLIMATE CHANGE ACTION PLAN</b>	<b>8</b>
<b>THE BIG PICTURE</b>	<b>10</b>
<b>OUR COMMUNITY</b>	<b>14</b>
EMISSIONS	16
COMMUNITY CLIMATE ACTION	17
COMMUNITY IMPACTS AND OPPORTUNITIES	19
BARRIERS TO ACTION	20
<b>OUR COUNCIL</b>	<b>22</b>
EMISSIONS	24
IMPACTS AND OPPORTUNITIES	28
WHAT YOU TOLD US	31
<b>OUR PLAN</b>	<b>32</b>
CLIMATE POLICY	34
STRATEGIC PRINCIPLES	34
GOALS, TARGETS, STRATEGIC DIRECTIONS, AND ACTIONS	35
PRIORITY ACTION PLAN 2022 – 2025	37
<b>RESPONSE AREA 1: FOUNDATIONAL/GOVERNANCE</b>	<b>37</b>
<b>RESPONSE AREA 2: MITIGATION</b>	<b>40</b>
<b>RESPONSE AREA 3: ADAPTATION</b>	<b>44</b>
<b>RESPONSE AREA 3: MOBILISATION</b>	<b>48</b>
IMPLEMENTATION AND FUNDING	53
FUNDING	54
MONITORING AND REPORTING	55
<b>APPENDICES</b>	<b>56</b>
APPENDIX 1: Adaptive Capacity Checklist	58
APPENDIX 2: Murrindindi Shire Council community-wide emissions by source, sector and subsector (largest to smallest contribution).	59
APPENDIX 3: Priority risks for action through this Plan	60
APPENDIX 4: Potential actions to be implemented from 2026 onwards	63
APPENDIX 5: Community perspectives	64
APPENDIX 6: How this plan was formed	65



## Acknowledgement of Country

Murrindindi Shire Council acknowledges the land on which we work exists on the Country of its traditional custodians, the Taungurung and Wurundjeri Woi-wurrung peoples of the Kulin Nation. We pay our respects to their ancestors and to their leaders and Elders past, present and emerging.

We recognise and respect their customs, values, and deep spiritual connection to Country that has endured for more than 60,000 years. We value the contribution their Caring for Country makes to the lands, waterways, plants, wildlife and people of our Shire. We accept the wrongs of the past and are committed to achieving justice, equity and reconciliation.

We acknowledge we have much to learn from the traditional custodians, especially in changing how we think, work and act in relation to our land and skies. When developing this plan, Council consulted with Taungurung and Wurundjeri Woi-wurrung representatives. They reminded us that the climate crisis is just one symptom of a far deeper problem: a disconnection of our society from the environment that supports us. This plan was developed with the hope of rebuilding this relationship so that the environment and communities of Murrindindi Shire can thrive.

“The Indigenous people of Australia walked gently on this land - I would like us to acknowledge and listen and learn from them.” -  
*Participant, Council Plan Engagement*





# **EXECUTIVE SUMMARY**

# CLIMATE CHANGE IS REAL

Climate change is a real and increasing threat to our health, our livelihoods, our environment, and our way of life.

Climate impacts threaten Council's ability to provide essential community services and infrastructure, and Council has a legislated responsibility to act.

In response to the crisis, Council has committed to reducing our greenhouse gas emissions to net zero by 2035, preparing for more extreme weather, and supporting our community to transition to a climate-safe way of life. Council's commitment is set out in its Climate Policy, which can be viewed on Council's website.

We've already made significant progress. Through renewable energy and efficiency upgrades, we have lowered our emissions by 16% since 2017. A solar bulk buy program and electric vehicle charger installations support community transitions. We've taken steps to build our resilience by installing backup generators, educating healthcare providers, and helping the community prepare for emergencies and plan for future conditions.

This plan sets out Council's climate action pathway from now until 2035. It was developed through extensive engagement and consultation with the community to ensure it reflects community views. Priority actions over the next three years have been identified, and after this period a new set of actions will be chosen based on the latest science and local needs.

We all have a role to play in restoring a safe climate and adapting to changes already set in motion. The Climate Change Action Plan lays out Council's role, and how we will support the community to act too.

## OUR CORPORATE EMISSIONS TARGETS<sup>4</sup>



## KEY ACTIONS IN THE PLAN INCLUDE:

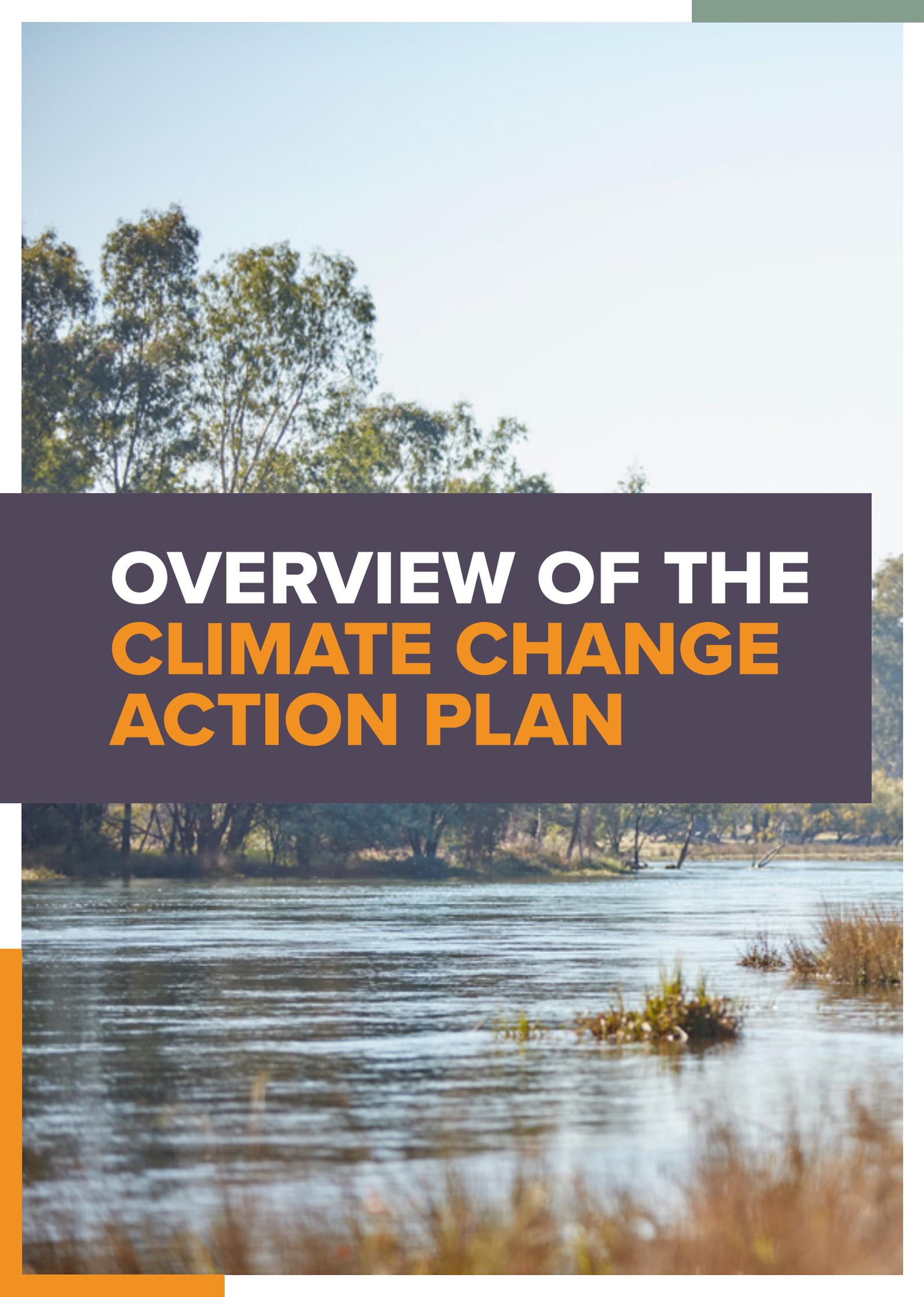
- Boosting Council's emergency management capacity and encouraging more community members to volunteer with the CFA and SES
- Making sure climate change is considered in Council plans, strategies, and day-to-day decision making
- Purchasing and installing renewable energy and making our buildings more energy and water efficient
- Designing new infrastructure to be more resilient to extreme weather and produce less emissions in construction and operation
- Transitioning our vehicle fleet to zero-emissions, starting with electric passenger vehicles
- Updating our planning scheme to reflect future climatic conditions, and enforcing vegetation clearing laws
- Introducing food and organic waste collection and exploring innovative ways to reduce landfill emissions
- Greening our urban areas to combat extreme heat, and managing bushland
- Helping the community to act through education, community forums, and direct support

<sup>1</sup> As identified in our Organisational Risk Register

<sup>2</sup> The Local Government Act 2020 and Climate Change Act 2017

<sup>3</sup> Commitments made through Council's Climate Change Pledge at the 21 November Ordinary Meeting.

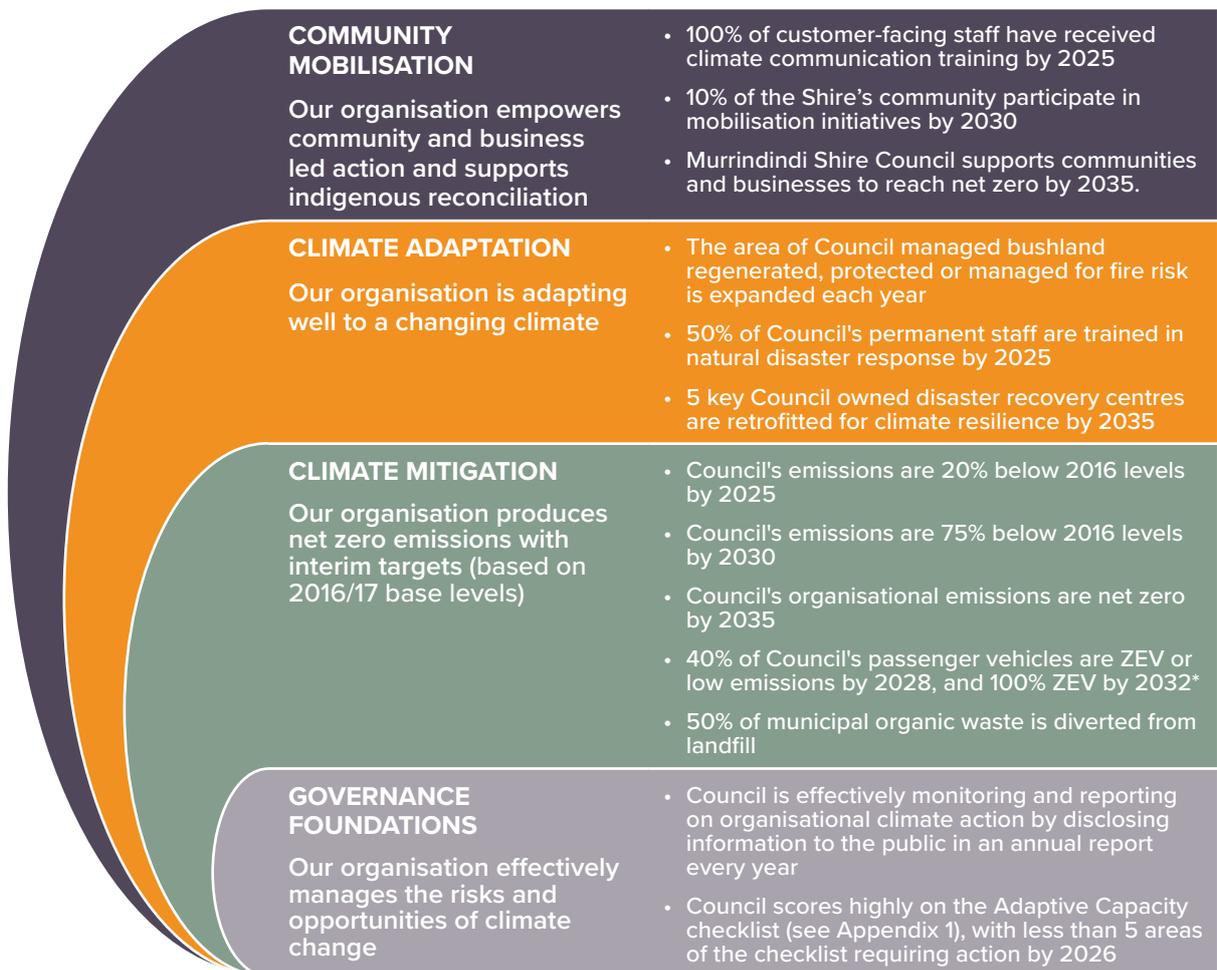
<sup>4</sup> Reductions based on 2016/17 emissions



# **OVERVIEW OF THE CLIMATE CHANGE ACTION PLAN**

# GOALS

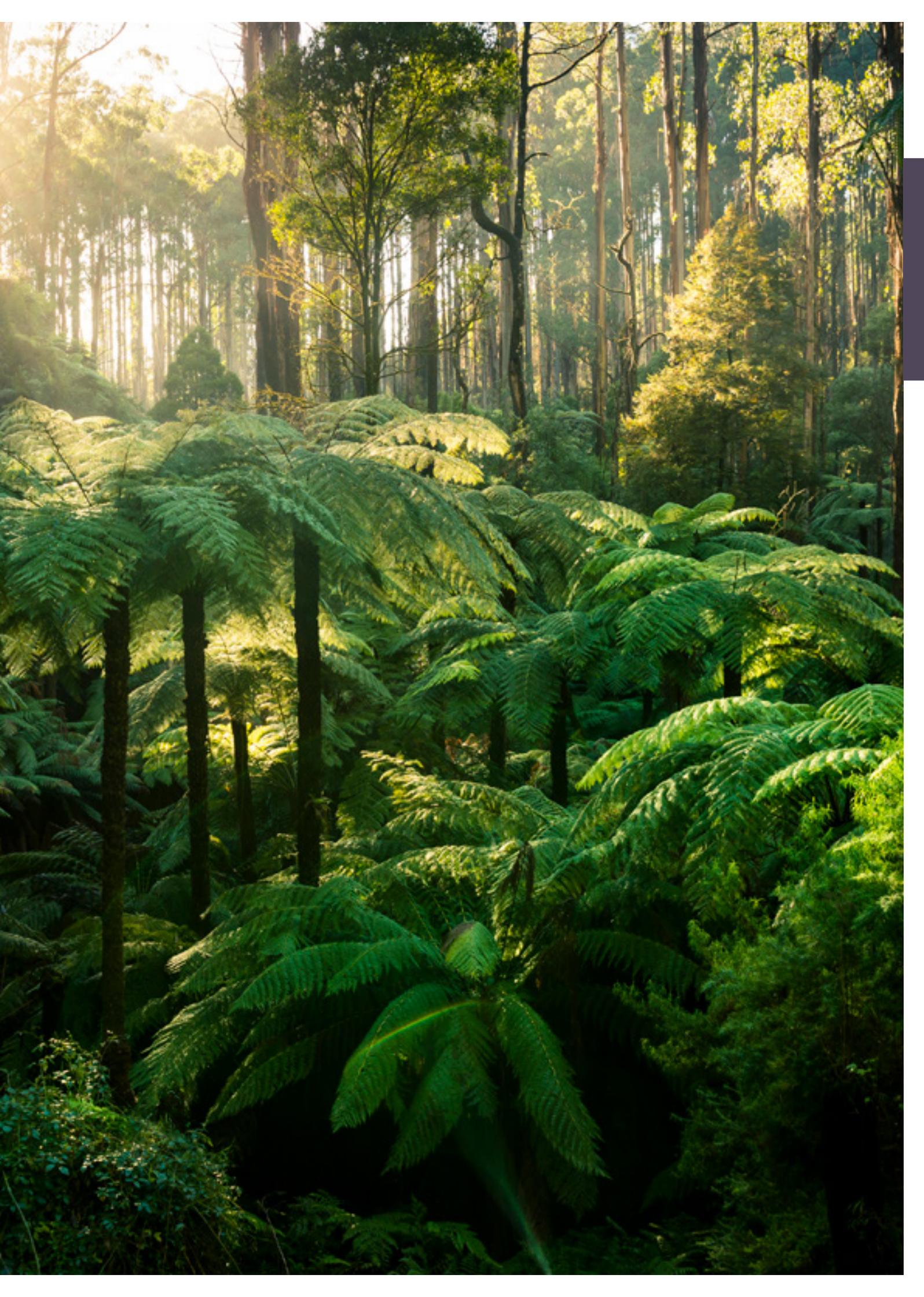
# TARGETS



\*ZEV Zero emissions vehicle; low emission vehicles emit a maximum of 100gm/km CO<sub>2</sub>-e

A lush forest scene with sunlight filtering through tall trees and a dense foreground of ferns. The top half of the image shows a bright, sunlit forest with tall, thin trees and a dense foreground of large, green ferns. The bottom half shows a darker, more shadowed forest with similar vegetation. A dark grey banner with white and orange text is overlaid on the middle.

# THE BIG PICTURE



# THE BIG PICTURE

## CLIMATE CHANGE IS REAL. IT IS CAUSED BY HUMAN ACTIVITY<sup>5</sup>.

Pollution from burning fossil fuels and other activities traps the sun's heat in the atmosphere, warming the air, land and seas, and causing more intense bushfires and heatwaves. Droughts, storms and floods are also becoming more frequent and intense as the water cycles that feed our rivers, farms and townships change.

Murrindindi Shire is already experiencing a more dangerous climate. In the decade since the devastating Black Saturday bushfires, we have seen unprecedented extreme heat, wind, storm, and rainfall events across the Shire. The storm events in 2010, 2012 and 2020 caused widespread blackouts, fallen trees on roadsides and fence lines, and impacts on our roads and buildings, with a direct cost to Council of over \$5.7 million. The 2013 and 2014 heatwaves saw many of our vulnerable residents needing assistance from our local health authorities and Council's community service team.<sup>6</sup> And, the recent 2022 Victorian floods resulted in more than 15,000 livestock deaths, 220ha of crops lost<sup>7</sup>, damaged roads and impacts on Council's ability to deliver business-as-usual services.

Without significant cuts to greenhouse gas emissions, our health, our livelihoods, our infrastructure, our environment, and our way of life are at risk.<sup>8</sup>

But if we take action now, we can create a safer climate future. A transition is already in motion across our Shire, and globally. By working together to scale up the solutions we have at hand, we can create a much more positive future, transforming our Shire into a safe place where people and nature thrive. In a 2022 youth summit, we asked young people from across the Shire their vision for the future.



### This is what they told us:

We live in a world with a flourishing environment. With fresh air, blue oceans, healthy forests, green cities, and thriving ecosystems.

Humans, animals and nature live without conflict and in harmony. Our communities are sustainable, powered by renewable energy, and fed by local, freshly grown produce. We have a circular system where waste is recycled, composted, reused and repurposed. Materials are given a new life, transforming into new products.

We live in a united and peaceful society. Young and old people of all genders, identities and cultures work together to make decisions for the benefit of the community's future. We value and care about the wellness and wellbeing of our community and environment.

We don't need to find a Planet B because we're looking after this one.

<sup>5</sup> IPCC (2021), *Climate change widespread, rapid and intensifying*. From [ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/](https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/)

<sup>6</sup> As reported in Murrindindi Shire Council 2010, 2012, 2014 & 2020 Council Annual Reports

<sup>7</sup> Agriculture Victoria (2022), *Flood and storm impacts in 2022*. From [agriculture.vic.gov.au/farm-management/emergency-management/floods/flood-and-storm-impacts-late-2022](https://agriculture.vic.gov.au/farm-management/emergency-management/floods/flood-and-storm-impacts-late-2022)

<sup>8</sup> IPCC (2022), *Climate change 2022: Impacts, Adaptation and Vulnerability: Summary for Policymakers*.

Over the past year, we've been finding out what climate change looks like in our Shire. We have investigated where our emissions are coming from and the most significant impacts to our organisation and municipality. This information provides a foundation of evidence for our plan, so we know we are putting our time and money where they will be most effective. A summary of our findings is presented in this plan, to support your own climate action journey and so that we can work together to co-create a safer future for our Shire.

During consultation, we received feedback from the community asking that we share and celebrate action that is already taking place locally. In response, we have showcased 'case studies' throughout the plan.

## A JUST TRANSITION

You may have heard the term 'just transition' used in the context of reaching net zero, but what does it really mean? A just transition is about making sure our efforts to tackle climate change don't end up disadvantaging some people over others, such as already marginalised groups or workers in a certain industry. It's about making sure that the benefits of a climate-safe way of life are shared fairly. Council is committed to a just transition, to making sure nobody is left behind in our efforts to restore a safe climate.

## IS IT TOO LATE TO ASK WHAT NET ZERO EMISSIONS MEANS?

The answer is no! Reaching 'zero' emissions would mean not emitting any greenhouse gases into the atmosphere at all, a difficult task given we do not have technological alternatives to some of our emissions sources. 'Net zero' means we still release a small amount of greenhouse gases, however we 'offset' what we emit by using methods to capture or absorb emissions, for example, planting more trees and vegetation helps to absorb emissions. Once we reach net zero emissions, the planet will be able to come back into balance. But it is important that we do it as soon as possible, because the longer we wait, the more the planet heats, and the less chance we have of being able to adapt and survive.



A photograph of a man in a dark blue hoodie and jeans standing in a nursery or garden. He is looking towards the right, where various plants and flowers are visible. The background is filled with trees and foliage, creating a bokeh effect. The overall scene is bright and natural.

# OUR COMMUNITY



# EMISSIONS

Below is Murrindindi Shire’s greenhouse gas emissions ‘profile’. In the 2020/21 financial year, total emissions were 355,000 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e<sup>9</sup>). To meet a target of net zero emissions by 2035, these emissions need to reduce by at least 9% per year.

Most of the emissions occurring within our municipality are from agriculture, mostly as methane produced when cattle digest their food. Transport, mainly on road diesel use, is the second biggest contributor, and a difficult one to tackle given the long distances our people, products and services must travel. A smaller proportion of emissions (approximately 20%) are from energy used by our households and businesses. Gas, water processing, and waste are small contributors to the total emissions profile. A more in-depth breakdown of the emissions sources within each sector is provided in Appendix 2.

The figure below was developed using the Snapshot Climate Data Tool. Data has been modelled, and where necessary estimated from publicly available sources, and presents a ‘best estimate’ only. The full methodology is updated annually and published on the Snapshot Climate website (visit [snapshotclimate.com.au/resources/](https://snapshotclimate.com.au/resources/))

## WHOLE-OF-SHIRE EMISSIONS

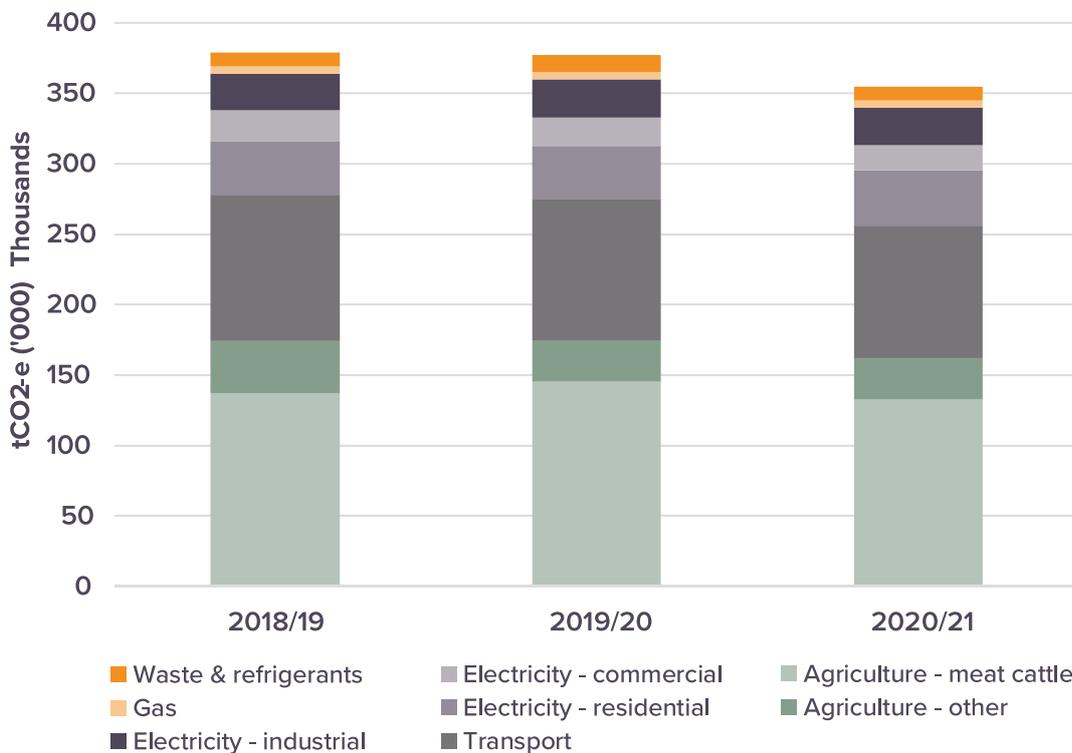


Figure 1: Community Emissions from July 2020 – June 2021 (most recent available data).  
Source: [snapshotclimate.com.au](https://snapshotclimate.com.au)

<sup>9</sup> tCO<sub>2</sub>-e refers to tonnes of carbon dioxide (CO<sub>2</sub>) equivalent. This is a metric measure that includes other types of greenhouse gases, such as nitrous oxide and methane.

# COMMUNITY CLIMATE ACTION

Community groups, businesses, organisations and households have already taken strides to reduce emissions and meet the challenges of a changing climate. We have a strong foundation from which to scale up action to achieve our vision for a net zero emissions Shire.

A third of our homes now have solar panels, several businesses provide electric vehicle charging facilities and purchase renewable energy for their operations, and farmers across the Shire are working to reduce livestock emissions and draw carbon down into soils and trees.

Two key sources of emissions in the community are transport and agriculture. Council is working to assist the community to take up opportunities in the transition to a low emissions future through collaboration with agencies, peak bodies, community groups and the commercial sector.

## CASE STUDY: ENABLING THE TRANSITION TO ELECTRIC VEHICLES



Council is facilitating a network of electric vehicle chargers in the municipality.

Two medium speed charge stations have been installed in Kinglake, and Council assisted with the installation of a 50kw DC charger in Alexandra by EV Up. These charge stations were installed as part of the Kinglake Streetscape Redevelopment, with funding from the State of Victoria.

Further chargers will be installed through a combination of partnerships and grant funding.

Climate Change Action Plan includes action to convert Council's fleet to zero carbon vehicles and plant.

## CASE STUDY: CARBON ON FARMS WORKSHOP



On December 9, 2022, Council collaborated with Landcare, Agriculture Victoria, and the Goulburn Broken Catchment Management Authority to run a workshop about carbon and climate change, tailored to cattle farmers. The workshop covered:

- Carbon cycling
- Calculating carbon and nitrogen emissions
- Emissions reduction and sequestration strategies
- Carbon trading

Farmers also had the opportunity to ask questions and voice concerns with Council and agency staff, and were invited to provide input into Council's Climate Change Action Plan.

Feedback from the events fed into future events.

# COMMUNITY CLIMATE ACTION

Council acknowledges the significant work by community groups over many years to lead community action, regenerate our local environment, assist agriculture to be sustainable and productive and reduce greenhouse emissions.

Two community groups that have formed in the Shire to tackle climate change: 2030Yea aims to achieve 100% renewable energy in Yea by 2030, and build the township's resilience to changed conditions, and the Murrindindi Climate Network unites community groups across the shire to reduce greenhouse gas emissions and facilitate adaptation at the local level. In addition, the Embassy of Ideas in Alexandra is a hub for local sustainability and resource sharing, and groups such as Landcare, Neighbourhood Houses and Rotary do vital work to boost the resilience of our communities and natural environments.

## CASE STUDY: 2030YEA



2030Yea is a community energy group supported by Council and Dr Helen Haines, the Federal Member for Indi. The passion of this community group is shown through its achievements in the last three years, including:

- Strategic work to show the path to renewable energy for Yea
- Established an information website with advice and videos
- Bringing speakers to Yea to share practical actions for the community
- 2030Yea members trained to provide a home energy advice service
- Working with RACV and NAB funding programs to provide solar on several community buildings in Yea, along with batteries
- Forming a collaboration with RMIT University and Indigo Power to investigate the possibility of a microgrid and neighbourhood battery for Yea

These projects have delivered over \$200,000 value to the Yea community along with ongoing savings. Congratulations to 2030Yea, we can't wait to see the next innovative project!

## CASE STUDY: THE MURRINDINDI CLIMATE NETWORK (MCN)



The Murrindindi Climate Network (MCN) was formed and incorporated in early 2007 to address climate change related impacts at a local level and to provide the community and businesses with up-to date information on environmental technologies and services. The MCN has brought forums and experts to the area to inform about climate change, agro-forestry and the benefits of on-farm biodiversity. In 2021 MCN continued this work with a Master Tree Growing course. The MCN initiated the Green Business Assessor training to help more than 40 local businesses to improve their sustainability. The MCN has encouraged local renewable energy with studies to demonstrate the benefit of increased solar installations and the potential for microgrids.

Landcare networks have lead initiatives to increase sustainable practices in agriculture. Landcare projects also protect the rich natural environment in Murrindindi Shire, allowing the best opportunity for natural adaptation to climate change.

#### CASE STUDY: UPPER GOULBURN LANDCARE NETWORK



In 2022, Upper Goulburn Landcare Network (UGLN) celebrated 20 years of work to protect the natural environment. The network, which covers Murrindindi Shire and the broader region, comprises 12 Landcare groups, 4 Junior Landcare groups, and 5 'Friends of' groups. Activities include habitat planting, wildlife monitoring, pest control, education, sustainable agriculture, and regenerative planting. UGLN also supports pest animal control programs, four Blackberry management action groups, and run educational programs for producers, landowners and schools, including 'Growing Regenerative Farming Systems' and 'Learning with Landcare'. These are part of a the wide range of programs offered by UGLN. For more information, visit [ugln.net](http://ugln.net)

One innovative project is the Alexandra Dehydrator Project (ADP). This project collects food waste from several Alexandra businesses and turns the waste into a dehydrated, usable garden product using a commercial dehydrator housed on Grant St Grocer's premises. Local students are involved, learning the importance of turning a waste product into a valuable resource for further food production. By partnering with the Landcare coordinators, the local businesses and community and market gardens, the students and the community will be able to see the direct benefit of the composting cycle.

# COMMUNITY IMPACTS AND OPPORTUNITIES

Our communities are already being affected by climate change, and as time goes on weather is getting more extreme and unpredictable.

If we stay on the same path of high greenhouse gas emissions, we can expect more frequent and intense bushfires, storms, floods, heat waves and droughts, with less rainfall, snow and frosts.

These impacts are highly damaging to our natural environments, but they also directly impact our health and livelihoods.

Below are the highest impact risks and opportunities for our Shire. A more complete list can be found in Appendix 3.

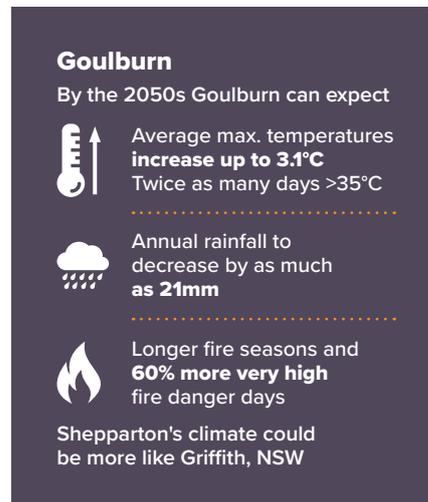


Figure 2: Goulburn region climate projections summary Source: DELWP 2019

## RISKS

From health impacts and power outages to threats to jobs in agriculture and tourism, climate change affects most areas of our lives.

- Physical and mental health impacts of extreme heat, bushfire, storms and flooding, especially for vulnerable people such as children and the elderly.
- Severing of transport routes and communications during storms and bushfires, increasing the impact of these events.
- Loss of homes and businesses due to bushfire, floods and extreme storms. Residents may also leave the area following extreme weather events as occurred after the 2009 bushfires.
- Extreme weather, drought and loss of snowfall threaten agriculture and tourism industries, and the economic stability of our communities.
- Forest, bushland and parks are degraded and may no longer be able to provide essential services like pollination, water filtration, carbon sequestration, and wellbeing support.
- Warmer temperatures bring more pests and weeds that threaten our agricultural industry and natural environments.
- Increased severity of droughts, impacting water availability for town and agricultural use.

## OPPORTUNITIES

The transition to a climate-safe way of life also brings potential benefits for our shire:

- ✓ Sustainable technologies are cheaper and more widely available, lowering energy costs and making buildings more resilient and comfortable.
- ✓ Growing demand for renewable energy and carbon offsets brings the potential to develop these industries in the Shire.
- ✓ Economic and community wellbeing benefits of a longer tourism season and more time spent outdoors in warmer weather.
- ✓ Purchasing and holidaying locally to reduce transport emissions also brings economic benefits to the local area.
- ✓ Health benefits of climate actions such as eating fresher locally grown foods, cycling rather than driving, and lower air pollution from electric vehicles and appliances.
- ✓ Working together to take action increases social connection and community resilience.
- ✓ Greater awareness of our interconnection with the natural environment.

# BARRIERS TO ACTION

*Council acknowledges that climate action requires us to make significant changes to business as usual. Council plays a big role in advocating to other levels of government so that Murrindindi Shire receives support to adjust to a zero emissions future and adapt to climate impacts.*

- We acknowledge that the initial cost of energy efficiency and renewable power, while less expensive in the long term, still presents challenges for transition actions in the home and business setting.
- We know that agriculture is the largest source of our municipality's greenhouse gas emissions, but equally, it is one of our largest economic sectors and has the potential to be our most important source of carbon storage.
- We also understand our farmers need workable, cost-effective solutions that reduce their carbon emissions. Peak industry bodies have already adopted carbon emission targets and promote practical approaches that have additional benefits such as healthier soils, more productive pastures and improved livestock nutrition. Collaborating with industry bodies such as Meat & Livestock Australia, Biodynamics Australia, Victorian Farmers Federation, and other levels of government to attract investment in the Shire's farming enterprises is one way Council could assist.
- The very nature of our rural community means that so many of us are dependent on motor vehicles to move around. While the price of zero-emissions vehicles is dropping, and the infrastructure to support an electric and hydrogen fuel cell vehicle network is developing, the pace of transition to cleaner forms of transportation is limited. Council is working with commercial providers to encourage public electric vehicle charging stations. First of these has been installed in Alexandra.
- We also acknowledge the need to support our local logging families and businesses as they transition away from native logging in line with the State Government decision to cease logging in Victorian native forests. Murrindindi Shire Council is supporting the communities of Marysvill, Buxton, Taggerty and Alexandra in preparation of a Local Development Strategy. View Council's online engagement platform The Loop for the progress of this project.



# OUR COUNCIL

Climate change directly impacts Council, and Council also contributes to the problem by producing around 2% of the Shire's greenhouse gas emissions (approximately 6500 tonnes per year). In this section, we will look at where Council's emissions are coming from, and the impacts and opportunities climate change presents to the organisation.





# EMISSIONS

A breakdown of the greenhouse gas emissions produced annually from Council's operations is shown below. This profile helps us to better understand where Council's emissions are coming from, so that we can focus on the biggest sources. In the 2022/23 financial year, most of Council's emissions came from our landfill site (87%) and fuel for large and passenger vehicles (13%). Less than 1% of our emissions came from paper, water, and LPG use. As of January 2022, Council made the switch to 100% renewable energy, which reduced our total emissions by around 13%.

Council does not currently monitor emissions from our contractors and service providers, so these are not included in the below profile.

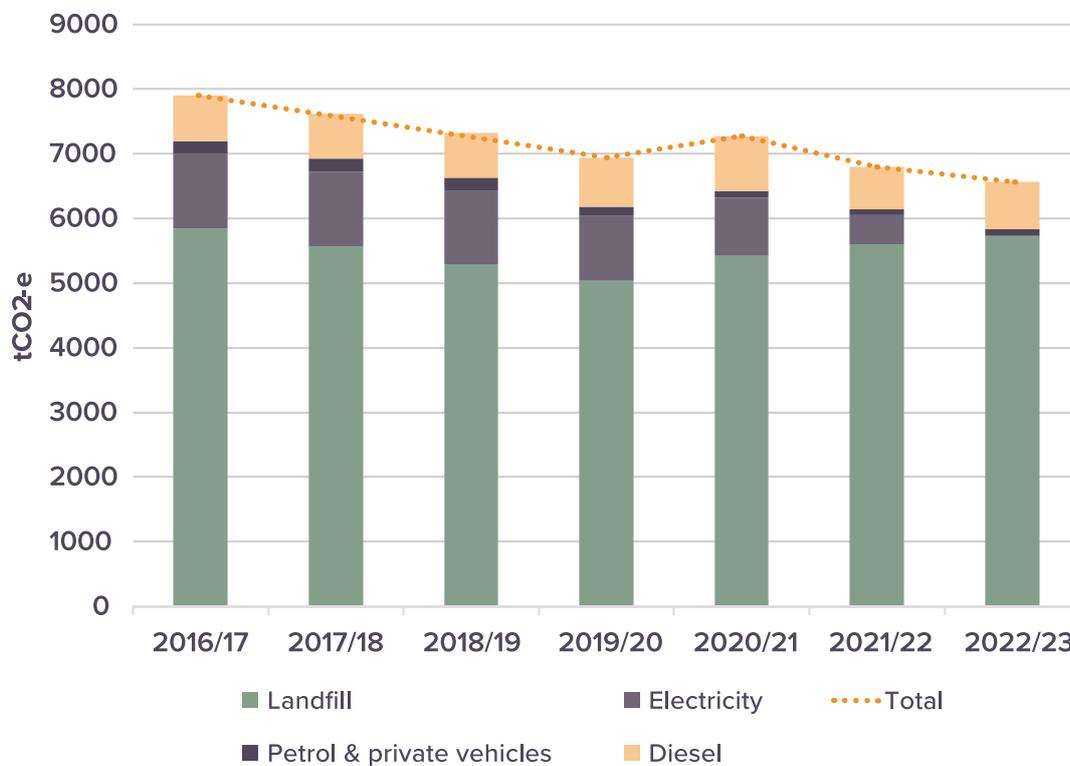


Figure 3: Corporate Emissions from July 2022 - June 2023. Source: Internal data collection. Total emissions: 6574 tCO2-e

Figure 3 shows the rapid decrease of Council's emission due to electricity use. This was due to Council's participation in an innovative collaboration to purchase zero carbon electricity from renewable sources. This project also delivered significant cost savings to Council.

## CASE STUDY: PURCHASING RENEWABLE, ZERO CARBON ELECTRICITY



Working together to power 51 councils in one huge renewable energy contract

In January 2023, Murrindindi Shire Council entered a long term contract to use zero carbon electricity. This was the outcome of a three year investigation and procurement project by 51 Victorian Councils. These Councils pooled their electricity needs into one long-term contract with Red Energy, which provides renewable energy generated from wind farms here in Victoria.

This renewable energy is powering Council-owned infrastructure, like our town halls, sports grounds, community venues, pools and streetlights. The purchasing power of this large contract also achieved lower electricity prices for Council. Moving to renewable energy has resulted in a 13% reduction in Council's greenhouse gas emissions. Council is proud to support VECO, which results in 51 council partners removing 260,000 tonnes of carbon emissions from entering the atmosphere – the same as taking 90,000 cars off the road.

Read more at [veco.org.au](https://veco.org.au)

# EMISSIONS

## GETTING TO ZERO: OUR EMISSIONS PATHWAY

Council has a corporate emissions reduction target of net zero by 2035. We have also set a short term target of 20% reduction by 2025 and a medium term target of 75% by 2030, based on 2016/17 levels (7900tCO<sub>2</sub>-e). Between 2016/17 and 2022/23, we have reduced our total emissions by 17%, so we are on our way to reaching our 2025 target.

The pathway below (Figure 4) shows key actions Council will take to get from our current emissions of around 7000 tonnes of carbon per year, to net zero by 2035. Our first-choice solutions are low cost or cost saving projects: avoiding and using energy more efficiently and switching to renewable energy. Council will invest in carbon offsets only where emissions could not be reduced otherwise. The following emissions reduction actions are planned. More information about our emissions profile, pathway, and guiding principles for carbon offsets can be found in our Carbon Inventory Boundary and Emissions Pathway Report.<sup>10</sup>

- Continue to purchase 100% renewable electricity for Council operations
- Make our buildings more energy and water efficient
- Develop Environmentally Sustainable Design guidelines for emissions reductions in asset maintenance and new builds.
- Manage landfill emissions – see text box on next page.
- Transition to a zero-emissions fleet, starting with electric passenger vehicles
- To achieve net zero, Council will ‘offset’ the remaining greenhouse gases through projects that draw greenhouse gases back down into soils and trees.

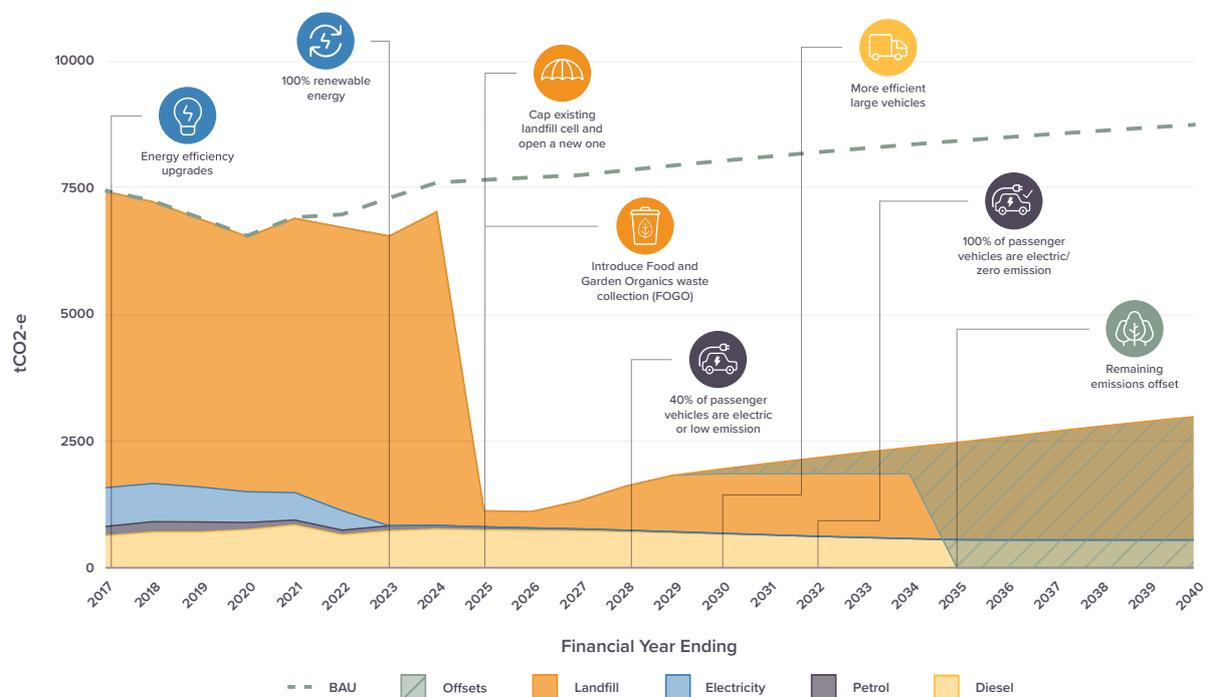


Figure 4: Council's Corporate Emissions Pathway – Showing Key Actions

<sup>10</sup> [theloop.murrindindi.vic.gov.au/climateaction](https://theloop.murrindindi.vic.gov.au/climateaction)

## MANAGING LANDFILL EMISSIONS

Landfill emissions make up the bulk of Council's organisational emissions. Landfill emissions come from organic material like food scraps and garden waste breaking down, which is why separating and composting these materials is key to reducing emissions from the waste sector. Landfill gas is roughly 50% methane and 50% carbon dioxide (CO<sub>2</sub>). Methane is a potent greenhouse gas that is 28 to 36 times more powerful than CO<sub>2</sub> at trapping heat in the atmosphere over a 100-year period.<sup>11</sup> Council is committed to managing landfill emissions. The following actions will be implemented by Council from 2025 and are expected to reduce emissions significantly.

1. Plan and implement a Food Organics and Garden Organics (FOGO) collection service to the community and use a professional waste treatment facility to compost waste (MIRE1)
2. Close, construct phyto-cap and rehabilitate current landfill site, and install a landfill gas management system. Monitor & manage the site to reduce emissions (MIRE2)  
In addition, these two actions will be ongoing throughout the life of the plan.
3. Continue to deliver waste education and other community support to divert food and other organics from landfill, reducing landfill emissions (MIRE3)
4. Continue to investigate additional options for managing municipal waste to reduce carbon emissions (e.g. landfill gas capture, organic waste composting, waste to energy) (MIRE4)  
Council is committed to doing our bit, but every resident produces waste and can play their part in reducing waste emissions.

---

<sup>11</sup> IPCC AR5 Synthesis Report: Climate Change 2014 [ipcc.ch/report/ar5/syr/](http://ipcc.ch/report/ar5/syr/)

# IMPACTS AND OPPORTUNITIES

Local governments are on the front line of climate impacts<sup>12</sup>. Climate change threatens our financial stability, our infrastructure, and our ability to provide essential services to the community. Climate action also presents many opportunities to our organisation.

## RISKS

- Extreme heat, bushfires and storms endanger Council staff and cause mental health impacts.
- Increased demand for weather-related emergency services, as well as more resilient emergency recovery centres.
- Bushfire and storms damage Council buildings, transport infrastructure, and communications and power services, reducing our ability to respond to emergencies.
- Heat and water stress cause more tree and limb falls, endangering people and increasing liability.
- A 'cost squeeze' due to higher demand for resources (e.g. emergency services, asset repairs, and rising insurance premiums) while the ability of the community to pay rates is reduced and emergency support funds are stretched.
- Liability risks – Council is legally required to consider climate change in decision-making, and decisions may be challenged in court, particularly those relating to land use planning decisions.

## OPPORTUNITIES

- ✓ Cheaper and more widely available sustainable technologies make our assets more thermally efficient, resilient, and cheaper to run.
- ✓ Grant funding may become available for projects such as facility upgrades and community development.
- ✓ As we take the lead on climate action, our Shire attracts investment into new industries, and new residents seeking a more sustainable lifestyle, boosting the rate base.
- ✓ Employees experience improved job satisfaction knowing that they are playing a key role in supporting our community through one of the greatest challenges of our time.
- ✓ Council becomes more flexible and capable as we learn new ways of doing things.

There are many actions we can take to reduce the impacts of climate change on Council. These include making sure our Operational Health and Safety procedures are suitable for more extreme weather, upgrading our infrastructure, considering climate change in our planning scheme and policies, training staff in emergency response, and making sure our staff are well supported through times of stress.

We can also take advantage of opportunities by exploring new technologies, attracting investment into emerging industries, integrating climate action across the organisation, and being a climate leader.

---

<sup>12</sup> Cities Power Partnership (2021). *Neighbourhood Issue: Climate Costs and Risks to Council*.

## BUILDING ON STRONG FOUNDATIONS – EXISTING COUNCIL ACTION

Council has reduced our emissions by 10% since 2017, by installing more than 130kw of solar power on Council buildings, upgrading hundreds of street and office lights to LEDs, and other energy efficiency upgrades. New public buildings demonstrate sustainable design as shown at the Yea Wetlands Discovery Centre. In January 2022, we signed up to the Victorian Energy Collaboration (VECO), locking in 100% renewable (wind) energy for our operations for the next 10 years. Council has also commissioned an Electric Vehicle Transition Plan to guide our fleet transition.

Council has supported community transitions through a Solar Bulk Buy program, which saw 68 solar systems installed on private homes. We have installed two publicly available electric vehicle chargers in Kinglake, and have delivered a program of public education on home composting to keep organic waste out of landfill.

Council has also been working behind the scenes to adapt to changed conditions. Throughout 2021 we ran a Climate Risk Assessment, building our capacity to identify risks and implement climate solutions. All critical Council facilities have backup generators, and we are making the shift to cloud-based IT systems. To combat the increased risks of flooding and extreme heat, we have collaborated in flood risk planning with the Goulburn Broken Catchment Management Authority, participated in a regional project looking at how we can increase tree canopy cover in our townships, and delivered a workshop with local community service providers on how to support clients through extreme heat.

Works are improving the health of Council's bushland areas and corridors to help the local environment survive climate challenges. Work is underway to improve stormwater runoff from townships to rivers.

Council has pledged and adopted a Policy to act on climate change with an ambitious target to reduce emissions to net zero by 2035 across our organisation, and support the community in action to achieve net zero emissions. We continue to advocate to State and Federal Governments to follow our lead and take more ambitious action to protect our livelihoods and communities.



# IMPACTS AND OPPORTUNITIES

## CASE STUDY: YEA WETLANDS DISCOVERY CENTRE



The Yea Wetlands Discovery Centre in Yea has educational displays, workshops and activities that challenge visitors to consider the impact of their actions on the world around us. The Centre itself is an excellent example of climate-smart building design. Features include:

- Northern orientation to capture the sun's warmth
- Sustainably harvested timber
- Water efficient fittings, and rainwater harvesting for use in toilets and on the garden
- Energy saving lights
- Solar panels and battery storage
- Native landscaping with low water requirements
- Low volatile organic compound (VOC) materials for clean indoor air
- Double glazed windows to keep heat in, and white, dispersing surfaces to spread natural light.

# WHAT YOU TOLD US

It is important that our Plan reflects community views and priorities. When developing the Plan, Council received input from more than 170 community members, through a community survey, pop-up kiosks, and meetings with community groups and organisations. We also reviewed community input into the 2021-25 Council Plan through the 'Shaping Our Future' campaign and consulted with youth leadership program participants.

This information helped inform our Plan's goals, strategic principles, and actions. We thank all community members who participated. The key messages from these conversations were:

- Our community is already feeling the impacts of extreme weather, changes to average weather patterns, and increased cost of living.
- Many in our community are extremely concerned about climate change, and 90% of those who provided feedback on the draft plan were supportive.
- A minority do not want Council to take action on climate change, and would prefer Council to focus on core business activities.
- Emergency management, agricultural emissions, and transport emissions were key community priorities. Several respondents raised concerns about the environmental impacts of alternative technologies, supporting instead a shift to a circular economy.
- Most survey respondents had made efforts to shift to renewable energy and increase water and energy efficiency, but lack of time and cost were significant barriers to further action.
- Taungurung representatives asked us to reflect on the wider issue of which climate change is a symptom: disconnection from the rest of the natural world.

Respondents were also given the option to vote on their top four priority actions that Council can take to support community transitions. Through this process, eight actions have been included in the Plan:

1. Support community efforts to increase the amount of renewable energy in the region, including solar and wind installations, along with battery technology, to improve energy reliability, especially during emergencies.
2. Incorporate a climate change stream into Council's existing grant programs for community and business.
3. Facilitate a bulk buy program for residents and businesses to purchase cheaper solar/batteries, electric vehicles, or other climate-safe technologies.
4. Expand Council's support for community nature restoration efforts, by assisting residents to connect with Landcare groups, expanding opportunities to care for local areas, educating, and encouraging individual action.
5. Support community groups who lease Council assets to install renewable energy and boost energy and water efficiency.
6. Continue to support the public transition to electric vehicles by installing chargers at Council facilities and working with regional stakeholders to support a Shire-wide transition.
7. Support business-based Food Organics Garden Organics (FOGO) waste management systems.
8. Work with stakeholders on an initiative to employ an agricultural field officer to provide tailored support to farmers on reducing emissions and adapting to climate change.



# OUR PLAN



# CLIMATE POLICY

This Plan has a timeframe to 2035 and will be regularly reviewed throughout that time to reflect changed conditions and community priorities. To maintain a consistent approach, Council has adopted a Climate Change Policy, which contains guidelines for implementing this Plan within each standard 4-year term of Council. All staff employed by Council, contractors, volunteers, and elected representatives will be required to abide by the policy.

## STRATEGIC PRINCIPLES

Climate change is a complex and evolving issue, and will require us to continually revisit, prioritise and evaluate the actions we take to assess their effectiveness in achieving our goals. The below principles have guided the development of this plan and will serve to support future climate action planning.

### LEAD BY EXAMPLE

By modelling the action needed, Council can inspire and motivate others to follow in our footsteps. This is the difference between saying 'you can do this' and 'we can do this together'. Through leading by example, we directly show others what is possible, and by showing our own commitment we build trust.

### BUILD NETWORKS AND PARTNERSHIPS

Climate change is what is known as a 'wicked problem', with complexities that are far beyond the capacity for any one individual or organisation to address. When we work in partnership with others, we can tap into greater knowledge and support, and create ripples of action that extend far beyond our organisation.

### SEEK SYSTEM RESILIENCE

From more intense and frequent droughts, extreme storms, and bushfires in our region, to changes to the global economy, politics and supply routes, the impacts of climate change on our Shire are varied and unpredictable. Healthy and diverse economies, communities and natural environments will be more resilient to change.

### PROPORTIONAL RESPONSE

Climate change is known as an 'existential' risk – it threatens our very survival. It is affecting us already and the longer action is delayed, the bigger the impacts that are felt. The speed of action and amount of resources allocated need to be in proportion to the threat.

### KEEP BENEFITS LOCAL AND JUST

Transitioning to a climate-safe society has many benefits, such as a more decentralised energy system, and funding soil and bushland restoration through offsets programs. Care should be taken to ensure these benefits remain within the Shire which will improve our resilience and motivate even more action. We will also work to ensure everyone can access the benefits and our most vulnerable are not left behind.

### CARE FOR COUNTRY

When we care for the land, the land will care for us in return. Restoring, acknowledging, and simply being on Country all help us bridge this gap and establish a relationship with the land that is one of sustainable custodianship.

# GOALS, TARGETS, STRATEGIC DIRECTIONS, **AND ACTION**

The next page gives a strategic overview of the Climate Change Action Plan.

In keeping with our commitment, this Plan addresses climate change through four central goals.

These are:

## **1.** **GOVERNANCE FOUNDATIONS**

Developing internal knowledge and systems so that climate change is considered in decision making across the organisation.

## **2.** **CLIMATE MITIGATION**

Addressing the crisis at its root by achieving net zero by 2035 and meeting our interim targets of 20% by 2025, and 75% by 2030 (reduction based on 2016/17 baseline levels).

## **3.** **CLIMATE ADAPTATION**

Minimising the impacts of climate change on Council's infrastructure and services.

## **3.** **COMMUNITY MOBILISATION**

Inspiring and scaling up climate action across the municipality and through other levels of government.

Targets have been developed for each goal to assist the organisation to measure its progress.

Progress towards the targets will occur in stages, with action linked to Council Plan timelines of 2021-25, 2025-9, and 2029-2033. The Plan will be reviewed and updated for each stage. This is crucial because many technologies to achieve greenhouse gas reduction are still developing in their technical and commercial maturity. Review of the Plan will enable Council to take advantage of these developments and the incentives expected from government to advance state and federal greenhouse reduction targets

The Plan has identified thirteen key action areas. Actions for the current Council term (to 2025) have been prioritised under each of these areas and will form the Climate Change Action Plan for the next three years.

Key actions to 2025 are projected to reduce Council's emissions by 58% through initiatives in waste and landfill management, purchase of renewable energy and some infrastructure upgrades. Many actions in the Plan will prepare Council to take advantage of maturing technology and implement adaptation measures for a heating climate and the increase in extreme weather events.

In 2025, the Action Plan will be reviewed, and a new priority action plan developed. Potential actions to be implemented from 2025 onwards are presented in Appendix 4, and it is assumed that many of the actions from the Action Plan to 2025 will be ongoing.

More information about the actions, including implementation, and notes from consultation and research, is housed in an internal master list.

# GOALS, TARGETS, STRATEGIC DIRECTIONS, AND ACTION

FIGURE 5: ACTION PLAN – STRATEGIC OVERVIEW

	1. GOVERNANCE FOUNDATIONS	2. CLIMATE MITIGATION	3. CLIMATE ADAPTATION	4. COMMUNITY MOBILISATION
GOALS	Our organisation effectively manages the risks and opportunities of climate change.	Our organisation produces net zero emissions.	Our organisation is adapting well to a changing climate.	Our organisation empowers community and business led action and supports indigenous reconciliation.
TARGETS	<p>Council is effectively monitoring and reporting on organisational climate action by disclosing information to the public in an annual report every year.</p> <p>Council scores highly on the Adaptive Capacity checklist (<a href="http://adapt.waga.com.au">adapt.waga.com.au</a>), with less than 5 areas of the checklist 'requiring action' by 2025.</p>	<p>Council's organisational emissions are net zero by 2035.</p> <p>Council's emissions are 20% lower than 2016/17 levels by 2025, and 75% lower by 2030.</p> <p>The volume of organic material going to landfill is halved by 2030.</p> <p>40% of Council's petrol fleet is electric by 2028, and 100% by 2032.</p>	<p>The area of Council managed bushland regenerated, protected or managed for fire risk is expanded each year.</p> <p>50% of Council employees are trained in natural disaster response by 2025.</p> <p>5 key Council owned disaster recovery centres are retrofitted for climate resilience by 2035.</p>	<p>10% of the Shire's community (or around 1,400 individuals, community groups or businesses) participate in mobilisation initiatives by 2030.</p> <p>100% of customer-facing staff have received climate communication training by 2026.</p> <p>Murrindindi Shire Council supports communities and businesses to reach net zero by 2035.</p>
ACTION AREAS	<p><b>1.1 Establish financial management systems that support climate action.</b></p> <p><b>1.2 Ensure staff and Councillors have the necessary knowledge and training to effectively manage climate change risks and the net zero transition.</b></p> <p><b>1.3 Implement reforms to Council's strategic planning, policies, processes that strengthen Council's ability to manage risks and opportunities of climate change in delivery of Council services.</b></p> <p><b>1.4 Ensure compliance with relevant legislation.</b></p>	<p><b>2.1 Implement identified emission reduction projects in the organisation that cost effectively support Council's transition to net zero emissions by 2035.</b></p> <p><b>2.2 Continue to develop and improve Council's emissions inventory and methodology for achieving net zero emissions.</b></p>	<p><b>3.1 Ensure Council's assets are suitably constructed and managed to weather extreme climatic conditions.</b></p> <p><b>3.2 Continue to manage high priority climate risks to Council's business continuity, essential services and key decision-making functions specifically land use planning and development approvals.</b></p> <p><b>3.3 Improve Council's organisational capacity in emergency and natural disaster response and recovery.</b></p>	<p><b>4.1 Continue to strengthen and deliver on Council's commitment to Indigenous reconciliation.</b></p> <p><b>4.2 Engage with stakeholders to build an understanding of how to effectively take action on climate change across the Shire.</b></p> <p><b>4.3. Help the community build capacity in emergency and natural disaster prevention, response and recovery.</b></p> <p><b>4.4. Provide direct resourcing, incentives, and support to households, community groups, businesses and farms for climate mitigation and adaptation activities.</b></p>

# PRIORITY ACTION PLAN

## 2023-2027

### ACTION PLAN KEY:

COST	KEY DESCRIPTION	TYPE OF ACTION
~	No additional budget required, funded within existing budget for staff salaries.	Existing action or not currently existing but easily achieved through reallocation of staff priorities and time.
\$	Requires budget less than \$50,000	Achievable action that does not currently exist and is therefore a new project.
\$\$	Requires budget in the \$50,000- \$100,000	Aspirational action that does not currently exist, has high capital cost but in many cases a good return on Council due to the co-benefit outcomes created.
\$\$\$	Requires budget in the \$100,000-\$200,000	
FY	Refers to the timeline for implementation	Not applicable
Onward	Refers to an action that rolls over annually	This refers to action that is not a project with a start and end date, rather an ongoing action that forms part of the way we do business/ operate.

### RESPONSE AREA 1: FOUNDATIONAL/GOVERNANCE

<b>DEFINITION</b>	Developing internal knowledge and systems so that climate action is considered in decision making across the organisation.
<b>GOAL</b>	Our organisation is effectively managing the risks and opportunities of a changing climate.
<b>TARGET</b>	<ul style="list-style-type: none"> <li>Council is effectively monitoring, reporting and verifying that climate actions are happening in our organisation by disclosing information to the public in an annual report every year.</li> <li>Council scores highly on the Adaptive Capacity checklist, with less than 5 areas of the checklist 'requiring action'</li> </ul>

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING & NOTES	LEAD
1.1 Establish financial management systems that support climate action	FBS2	Cost and include actions in Council's 10 year financial planning process to ensure long term planning and resource allocation for Council's Climate Change Plan (including 4- and 10-year budgets)	Staff time (all units)	2023/24 onward	Allocated staff time (salaries)	Finance
	FCC5	Develop project proposals and/or business cases for Climate Change Action Plan priority projects to fast-track grant applications	Staff time (all units)	2023/24 onward	Allocated staff time (salaries)	Climate program
	FBS1	Monitor and report on climate-related expenditure and impacts of extreme weather events on service delivery and financial sustainability	Staff time	2024/25 onward	Allocated staff time (salaries)	Finance

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 1: FOUNDATIONAL/GOVERNANCE

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING & NOTES	LEAD
1.2 Ensure staff and Councillors have the necessary knowledge and training to effectively manage climate change risks and the net zero transition	FCC3	Educate staff and Councillors on managing climate risks and communicating climate risks to the public. Develop a climate change induction module for new staff.	Staff time + \$	2024/25 onward	Staff time (salaries) + operational budget bid	Climate program
	FCC4	Ensure all staff have access to latest climate science, risk assessment methodology and scenario analysis by developing a climate change knowledge and resource hub on Council's intranet.	Staff time	2023/24 onward	Allocated staff time (salaries)	Climate program
	FAM2	Develop and apply Environmentally Sustainable Design guidelines for new infrastructure projects and significant upgrades, and undertake water efficiency, energy efficiency, and emissions assessments during the project planning phase to ensure the project is consistent with climate change targets.	Staff time	2024/25 onward	Can utilise resources from other Councils, IDM	Sustainability and assets
	FAM3	Ensure regular professional development plans include training activities for asset management and engineering practices to reflect changed climate conditions and emerging solutions	Staff time	2023/24 onward	Allocated staff time (salaries)	Sustainability and Assets
	FCC5	Undertake a comprehensive review of greenhouse gas emissions, future emissions pathways, climate risks, and levels of community concern and satisfaction, and revise the CCAP accordingly.  Investigate the inclusion of climate change-related questions in the customer satisfaction survey every 4 years in concert with comprehensive pathways and risks review.	Staff time	Every 4 years – next review in 2027 calendar year	Staff time  May require consultant support for pathway modelling	Climate program

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING & NOTES	LEAD
1.3 Implement reforms to Council's strategic planning, policies, processes that strengthen Council's ability to manage risks and opportunities of climate change in delivery of Council services.	FCC7	Propose relevant strategies and actions from the CCAP in each Council Plan process.	Staff time	Ongoing	Allocated staff time (salaries)	Environment
	FA1	Inform Environment Team of projects with climate mitigation and/or adaptation outcomes, to be promoted to the community	Staff time	Ongoing	Allocated staff time (salaries)	All staff
	FGR6	Incorporate Climate Change Risk Assessment results into Council's risk management system and align the organisation's risk management framework with ISO standard 14091:2021 – 'adaptation to climate change'	Staff time	2023/24 onward	Allocated staff time (salaries)	Climate program
	FGR5	Incorporate climate change reporting at the department level with Council's quarterly and annual reporting cycles, and publicly report on Council's climate change program including emission profile reports and climate risk management	Staff time	2023/24 onward	Allocated staff time (salaries)	Governance and Risk
	FGR2	Introduce climate change and environmental responsibilities into position descriptions and performance development plans (requirements to comply with Council's Climate Policy).	Staff time	2023/24	Allocated staff time (salaries)	Human Resources
	FGR4	Add Climate Change Impact Statement to officer briefing/agenda paper templates	Staff time	2023/24	Allocated staff time (salaries)	Governance and Risk
	FGR3	Contribute to a review of processes for procurement, business planning, service planning and project management framework to ensure climate risk, emissions, and broader sustainability opportunities are considered in decision making (To align with Council's Climate Policy 2022)	Staff time	Ongoing	Allocated staff time (salaries)	Climate programs
1.4 Ensure compliance with relevant legislation	MODS 4	Allocate resourcing to enforcement of the Victorian Government environmental and native vegetation regulations	Staff time	2023/24 onward	Compliance resources allocated	Development services

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 2: MITIGATION

Council has a target to reduce its greenhouse emissions to net zero by 2035. Actions to achieve this include energy efficiency, installing solar systems on Council buildings and purchasing electricity from renewable sources. Energy projects are saving council money over time, releasing resources for other community projects.

#### CASE STUDY: MARYSVILLE KINDERGARTEN SOLAR SYSTEM



In December 2019, Council's Marysville Maternal Child Health Centre & Kindergarten received a new 6kw solar system. The system was funded partially by the Victorian Government through the *Local Government Energy Saver Program*, which aimed to support regional local governments to lower costs and greenhouse gas emissions, and future proof assets through energy efficiency upgrades and solar installations. A further 21 other Council facilities were also upgraded, including the installation of five solar systems across the Shire.

The system has provided up to half of the building's energy needs in winter, and all its needs in summer. It has saved about 15 tonnes of carbon emissions, the equivalent of driving 60,000 km, or driving from Kinglake to Broome and back 10 times! It has also saved Council \$3,300 in energy bills, so it's well on its way to earning back Council's \$5,200 contribution toward the system.

<b>DEFINITION</b>	Addressing the crisis at its root by achieving net zero by 2035 and meeting our interim targets of 20% of 2016/17 levels by 2030, and 75% by 2030. This section covers organisational emissions only - municipal emissions reductions actions are in the mobilisation section.
<b>GOAL</b>	Our organisation produces net zero emissions.
<b>TARGET</b>	<ul style="list-style-type: none"> <li>• 50% of municipal organic waste is diverted from landfill.</li> <li>• Council's energy comes from 100% renewable sources by 2022.</li> <li>• Council's passenger vehicles are zero net emissions by 2032.</li> </ul>

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST	FY	FUNDING SOURCE	LEAD
2.1 Implement identified emission reduction projects in the organisation that cost effectively supports Council transition to net zero emissions by 2035.	MICC2	Ensure Council continues to operate on 100% renewable electricity, and install solar and batteries where appropriate  Projected emissions reduction <sup>13</sup> : 13%	Staff time	Ongoing	Allocated funds committed (operational budget)	Procurement
	MICC3	Transition to a zero emissions fleet, starting with electric passenger vehicles and light machinery, by incorporating purchase of electric options into fleet and machinery planning and procurement  Stage 1 Electric Passenger Vehicles and light machinery  Projected emissions reduction: 5% (from shift to electric passenger vehicles)	\$ per year	2023/24 onward (charge stations)  2024/25 onward (Passenger fleet)	Additional costs of purchase  Reducing to zero in later years	Fleet program
	MICC3	Investigate and plan transition to low and zero emissions plant, and heavy vehicles as technology becomes available  Stage 2 Heavy vehicles and machinery  Projected emissions reduction: 3% (diesel vehicle efficiency improvement of 3% per year)	Staff time	2024/25  Investigate options 2025/26 Business case-heavy plant	Allocated staff time (salaries)	Climate program
	MICC4	Upgrade remaining street lighting to efficient LED including VicRoads managed streets. This efficiency program will save electricity use and cost.  Projected emissions reduction included in MICC2	Residential lights \$  Main Road lights \$\$	2024/25 onward	Grant project/new initiative for co contribution.	Climate program

<sup>13</sup> From 2016/17 levels

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 2: MITIGATION

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST	FY	FUNDING SOURCE	LEAD
2.1 Implement identified emission reduction projects in the organisation that cost effectively supports Council transition to net zero emissions by 2035.	MICA1	Upgrade Council facilities to be more energy and water efficient (e.g. efficient lighting and hot water systems, air conditioning upgrades, intelligent systems, insulation). Install additional solar panels to support battery storage to reduce electricity in council and community projects  Projected emissions reduction: included in MICC2	\$ per year  Will have ongoing operating savings as well	2024/25 onward	Grant project/new initiative (capital budget bid for ongoing fund)	Climate program
	MICC1	Implement behavioural measures to reduce organisational resource use (e.g. avoiding unnecessary staff travel, carpooling, cycling/walking to work, reducing paper use, switching off PCs, lights and air conditioning when not in use)  Projected emissions reduction: unknown	Staff time	ongoing	Allocated staff time (salaries)	All staff (Climate program lead)
	MIRE1	Close, construct phyto-cap and rehabilitate current landfill site. Undertake data analysis to project emissions reductions from capping and based on the recommended method to manage landfill emissions.  Monitor & manage the site to reduce emissions.  Projected emissions reduction MIRE 1-4:45%	Waste and resource recovery plan	2023/24	Funds allocated	Waste
	MIRE2	Plan and implement a FOGO collection service to the community and use a professional waste treatment facility to compost waste  Projected emissions reduction MIRE 1-4:45%	Waste and resource recovery plan	Design 2023/24  Works 2024/25	Funds allocated	Waste

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST	FY	FUNDING SOURCE	LEAD
2.1 Implement identified emission reduction projects in the organisation that cost effectively supports Council transition to net zero emissions by 2035.	MIRE3	Deliver waste education and other community support to divert food and other organics from landfill, reducing landfill emissions  Projected emissions reduction MIRE 1-4:45%	Waste and resource recovery plan	Ongoing	Funds allocated	Waste
	MIRE4	Investigate options for managing municipal waste to reduce carbon emissions (e.g. landfill gas capture, organic waste composting, waste to energy)  Projected emissions reduction: unknown	Staff time	Ongoing	Funds allocated	Waste
	MIBS2	Monitor and where possible utilise low-emissions financial management products as offered by Council's banking and insurance providers.  Projected emissions reduction: unknown	Staff time	2024/25 onward	Allocated staff time (salaries)	Finance
2.2 Continue to develop and improve Council's emissions inventory and methodology for achieving net zero emissions.	MICC7	Report on energy, water, emissions and offsets in Council's annual report, and business unit reports, Evaluate progress against emissions targets. For Council's target dates at 2030 and the net zero emissions outcome at 2035, also report the amount required for purchase or generation of carbon offsets to achieve each target.	Staff time	2024/25	Allocated staff time (salaries)	Climate program
	MICC8	Investigate opportunities to report, measure and manage additional emission sources from Council's supply chain not currently incorporated into Council's carbon inventory (scope 3 emissions)	Staff time	2024/25 onward	Allocated staff time (salaries)	Climate program
	MOCC 4	Continue to investigate and where feasible implement local tree planting programs to meet Council's carbon offsetting targets and obligations	Stage 1 existing fund	2024/25 Investigate 2026-30 implement	New initiative (operational budget bid for ongoing fund)	Climate program
	MICC 5	Develop a carbon offsetting policy or guidelines that defines the strategy for how Council will offset to meet net zero target	Staff time	2023/24 onward	Allocated staff time (salaries)	Climate program

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 3: ADAPTATION

Climate change is already affecting local conditions with more intense heatwaves, storms and increased fire risk in a longer fire season. Adaptation actions help Council to pivot its services to account for these changed conditions. Public health and emergency response is the collective responsibility of a number of organisations in Murrindindi Shire, which Council collaborates with to prepare for heatwave and other extreme weather conditions.

#### CASE STUDY: HEAT HEALTH WORKSHOP



In 2021, Council officers from community wellbeing, emergency management, and environment units collaborated to run a heat health workshop. The workshop was attended by staff from Alexandra District Health and Nexus Primary Care, who learned about the increased risk of extreme heat exposure due to climate change, its impacts on clients especially vulnerable community members, and practical ways to provide support.

The workshop received good feedback, and attendees requested further training sessions as well as opportunities to plan for extreme heat events in collaboration with other healthcare organisations.

<b>DEFINITION</b>	Minimising the impacts of climate change on Council's infrastructure and services
<b>GOAL</b>	Our organisation is adapting well to a changing climate.
<b>TARGET</b>	<ul style="list-style-type: none"> <li>The area of Council managed bushland regenerated, protected or manage for fire risk is expanded each year.</li> <li>50% of Council employees and elected representatives are trained in natural disaster response.</li> <li>5 key Council owned 'earmarked' disaster recovery centres are retrofitted for climate resilience.</li> </ul>

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST	FY	FUNDING SOURCE	LEAD
3.1 Ensure Council's assets are suitably constructed and managed to weather extreme climatic conditions	ARE1	Undertake ongoing management of Council-managed bushland to balance biodiversity improvement with fuel load management. Where appropriate seek expertise and employment of local First Nations people	Existing	2023/24 onward	Funded program	Environment
	ARE2	Undertake a review of fire planning at Resource Recovery Centres, with the aim of reducing risk of organic waste fire. Ensure fire agencies are involved in the review.	Staff time	2023/24	Allocated staff time (salaries)	Waste
	ARE4	Commit to an expanded revegetation and pest animal and weed management plan to strengthen ecosystem resilience. Where appropriate seek expertise and employment of local First Nations people	\$\$	2024/25 onward	New initiative (operational budget bid) Grant funds	Environment
	ARE5	Continue to improve Council works practices to ensure the health of natural environments is not jeopardised.	Staff time	Ongoing		Environment
	ARE6	Allocate resourcing to meet Council's existing obligation for historical vegetation offsetting responsibilities	\$\$\$	Future period	New initiative (operational budget bid)	Environment
	ARE7	Work with regional partners to undertake an Assets Vulnerability Assessment & Costs Implications for key Council infrastructure (subject to grant funding, project led by Goulburn Murray Climate Alliance)	Funds allocated	2023/24	GMCA region grant funding successful	Climate Program
	ACA6	Develop township planting programs to investigate increased resource for urban vegetation for shade in heating climate. Draw on resources from Naturally Cooler Towns to support this	\$	2024/25	Initiative for ongoing funding increase	Operations and Maintenance

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 3: ADAPTATION

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST	FY	FUNDING SOURCE	LEAD
3.1 Ensure Council's assets are suitably constructed and managed to weather extreme climatic conditions	ACA8	Develop a Street Tree Policy to protect and improve urban tree canopy to provide cooler shady towns in a heating climate.	Staff time/ grant funding sought	2023-24	Allocated staff time (salaries)	Operations
	ACA7	Utilise latest climate change projections (e.g. rainfall, bushfire risk, temperature) to assess requirements/sizing for new infrastructure such as stormwater systems, bridges and green infrastructure	Staff time	Ongoing	N/A	Assets
	ACA9	Develop a water use program and assign key performance indicators for effective and efficient water use for Council services	Staff time	2023/24	Allocated staff time (salaries)	Assets
	ACA10	Implement integrated water management principles and actions into all Council projects, including water recycling	Staff time	2024/25	Allocated staff time (salaries)	Assets

**NB: Resilience of Council facilities is also addressed in MICA1 (p. 25)**

3.2 Continue to manage high priority climate risks to Council's business continuity, essential services and key decision making functions specifically land use planning and development approvals.	ABS2	Explore opportunities to boost National Disaster Fund payments so that damaged assets can be replaced with climate-adapted capacity, rather than replace to previous condition	Staff time	Ongoing	Allocated staff time (salaries)	Sustainability and Assets/ Finance
	AEM4	Work with partners to redevelop the Shire's flood modelling for extreme precipitation events in alignment with the Goulburn Broken Floodplain Management Strategy 2018 – 2028 (note GBCMA is developing this objective in 2022/23 and 2023/24)	Staff time	2024/25	Victorian Government funds	Development Services/ GBCMA

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST	FY	FUNDING SOURCE	LEAD
3.2 Continue to manage high priority climate risks to Council's business continuity, essential services and key decision making functions specifically land use planning and development approvals.	AEM5	Review Council's business continuity plan and emergency plans to ensure they meet the needs of a changing climate	Staff time	2023/24	Allocated staff time (salaries)	Emergency management
	ADS1	During review of the Murrindindi Planning Scheme, investigate changes to overlays and zoning that incorporate best available climate projections and relevant guidelines	Staff time	2024/25 commencement	Funds already allocated for employment of strategic planner	Development Services
	ADS2	Develop a climate change policy under the local planning policy framework, and revise existing planning policies to incorporate consideration of climate change, in accordance with relevant guidelines	Staff time	2024/25	Allocated staff time (salaries)	Development Services
3.3 Improve Council's organisational capacity in emergency and natural disaster response and recovery.	AGR1	Review OH&S policies and procedures to ensure they are suitable for more severe conditions, especially extreme heat and storms	Staff time	2023/24	Allocated staff time (salaries)	Governance and Risk (OH&S)
	ABS1	Continue the switch to the digitalization of workplace correspondence and record-keeping	Staff time	ongoing	Business services budget	IT
	AEM1	Boost numbers of staff trained in emergency support roles to 50% of permanent staff	Staff time	ongoing	Allocated staff time (salaries)	Emergency management
	ACA3	Investigate ways to better manage wood from fallen trees with the understanding that this is occurring with increased frequency due to storm events (e.g. partner with firewood provider, take to vacant lot)	Staff time	2024/25	Allocated staff time (salaries)	Operations and Maintenance

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 4: MOBILISATION

#### CASE STUDY: MURRINDINDI YOUTH LEADING THE WORLD CONGRESS



In March 2023, Council facilitated the Murrindindi Youth Leading the World Congress event in Alexandra. The project was initiated and supported by Murrindindi Shire Council, and facilitated by youth leaders. We had a small but committed group of a dozen young people between the ages of 12 and 14 years, mostly from Alexandra Secondary College. Over the day we spent time talking about the state of the world, the youth leaders' concerns, their vision for their communities' futures, and their ideas for creating change. The students and Council have continued to work together since this time to develop and implement their action plans. As well as developing a future vision, participants voted on their top concerns, which were:

- Climate change
- Vaping
- Natural disasters
- Pot holes
- Money coming before the environment
- Young people's opinions not valued or trusted
- Lack of diversity in decision-making
- Microplastics

<b>DEFINITION</b>	Inspiring and scaling up climate action across the municipality and through other levels of government
<b>GOAL</b>	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties Plans
<b>TARGET</b>	<ul style="list-style-type: none"> <li>• 10% of Murrindindi Shire's community (or around 1,400 individuals, community groups and businesses) take part in Council supported initiatives.</li> <li>• 100% of customer-facing staff have received training in effective climate conversations and where to direct customers to more information and resources</li> <li>• Murrindindi Shire Council supports communities and businesses to reach net zero by 2035.</li> </ul>

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING SOURCE	LEAD
4.1 Continue to strengthen and deliver on Council's commitment to First Nations reconciliation	MOCS 4	Implement Council's Reconciliation Action Plan to foster relationships with the indigenous community, build climate resilience, and inspire more sustainable relationships with the environment	Staff time	2023/24 onward	Funds already allocated	Community wellbeing
4.2 Engage with stakeholders to build an understanding of how to effectively take action on climate change across the Shire.	MOCC 3	Contribute to regional climate advocacy campaigns to state and federal governments for support and stronger action locally (identify priority areas of action and resourcing requirements)	Staff time	Ongoing	Allocated staff time (salaries)	Climate program
	FCE1	Develop a consistent narrative that promotes action on climate change, and identify and implement best methods for ongoing community engagement and education around climate change, such as surveys, factsheets, online, events, and through existing trusted networks.	~	2023/24 and ongoing	Allocated staff time (salaries)	Climate program
	MOCC 5	Publish a comprehensive community emissions profile and net zero pathway, and community guidelines/lists of the most effective actions to take by sector (households, businesses, agriculture), justification, costs, and available financial assistance.	Existing project	2023/24	Initial regional project with local analysis for MSC	Climate program
	MOCS 1	Cooperate with external health and community service providers to educate health service staff about climate impacts and how to support vulnerable communities through extreme weather events	External funds	2024/5	Allocated staff time	Community wellbeing
	MOCC 1	Facilitate community-led climate action through sector-specific community engagement and planning initiatives. Consider using Council's community planning model to implement these initiatives.	\$\$	2024/25 – 2025/26	New initiative (operational budget bid)	Climate program

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 4: MOBILISATION

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING SOURCE	LEAD
4.2 Engage with stakeholders to build an understanding of how to effectively take action on climate change across the Shire.	MOCC 2	Promote community adoption of climate-adapted and low emissions technologies and consideration of climate risk among Council's networks (business, suppliers/contractors, community groups, agencies).	\$	2024/25	New initiative (operational budget bid) + staff time	Climate program
	MCE1	Develop libraries and customer service centres as climate resilience hubs to showcase technologies, run events, and host relevant community activities	Staff time	2025/26	2025/26 Grant funded to enhance existing programs	Customer experience
	MODS 1	Promote sustainable developments through the Sustainable Subdivisions Trial and ESD planning officer. Extend this project to implement an ESD planning policy, with mandatory ESD provisions within the planning scheme	Staff time	ongoing	Existing funds allocated	Development Services
	MOCS 6	Deliver climate-related actions in the Municipal Health and Wellbeing Plan, in accordance with Victorian Public health and wellbeing plan 2019–2023	Staff time	ongoing	Allocated staff time (salaries)	Community wellbeing
	MORE 5	Develop Environmentally Sustainable Design guidelines for new projects and developments, and infrastructure maintenance and upgrades, including integrated water management strategies	Staff time	2023/24	Allocated staff time (salaries)	Climate program
4.3. Help the community build capacity in emergency and natural disaster prevention, response and recovery	MOTE 4	Work with tourism providers, event organisers and emergency services to ensure visitor and event emergency safety procedures are sufficient for more extreme conditions	Staff time	2023/24	Allocated staff time (salaries)	Economic Development
	MOEM 2	Continue to participate in Local Emergency Action Plan (LEAP) program to help at-risk small communities identify and analyse their local risks, develop a LEAP, and provide support for actions that increase the community's ability to mitigate, avoid, withstand and/or recover from the increasing effects of bushfire, storm or flood	Staff time	2023 -2025	Existing pilot program  Seek grant funds to extend this program	Emergency Management

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING SOURCE	LEAD
4.3. Help the community build capacity in emergency and natural disaster prevention, response and recovery	MOEM 1	Advocate for and otherwise support improved communications coverage across Murrindindi Shire during emergencies. Seek partnerships and relationships with Ausnet and Telstra to assist this aim.	Staff time	ongoing	Allocated staff time (salaries)	Emergency services
	MOCS 3	Encourage and support increased community volunteerism, particularly in SES and CFA	Staff time	ongoing	Allocated staff time (salaries)	Community wellbeing
	MOCS 5	Continue to run community development programs (community planning) , with the understanding that better connected communities are safer and more resilient. Consult with Environmental Programs to identify additional opportunities for programs to facilitate climate adaptation and mitigation outcomes	Staff time	ongoing	Existing programs	Community wellbeing
4.4. Provide direct resourcing, incentives, and support to households, community groups, businesses, farms and service providers for climate mitigation and adaptation activities.  These activities have been placed in a priority order determined by community voting in 2023.	MOCC 19	Support community efforts to increase the amount of renewable energy in the region, including solar and wind installations, along with battery technology, to improve energy reliability, especially during emergencies	Staff time	TBA	Allocated staff time (salaries)	Climate program
	MOCC 11	Incorporate a climate change stream into Council's existing grant programs for community and business	\$\$	TBA	New initiative (operational budget bid)	Community wellbeing
	MOCC 9	Facilitate a bulk buy program for residents and businesses to purchase cheaper solar/batteries and other climate-safe technologies	\$	TBA	New initiative (operational budget bid)	Climate program
	MORE 2	Expand Council's support for community nature restoration efforts, by assisting residents to connect with Landcare groups, expanding opportunities to care for local areas, educating, and encouraging individual action.	\$	TBA	New initiative (operational budget bid)	Environment

# PRIORITY ACTION PLAN

## 2023-2027

### RESPONSE AREA 4: MOBILISATION

STRATEGIC DIRECTION	REF #	DESCRIPTION OF ACTION	COST ESTIMATE	TIME	FUNDING SOURCE	LEAD
4.4. Provide direct resourcing, incentives, and support to households, community groups, businesses, farms and service providers for climate mitigation and adaptation activities.  These activities have been placed in a priority order determined by community voting in 2023.	MOCA 1	Support community groups who lease Council assets to install renewable energy and boost energy and water efficiency	Staff time	TBA	Allocated staff time (salaries)	Community development
	MOCC 14	Continue to support the public transition to electric vehicles by installing chargers at Council facilities and working with regional stakeholders to support a shire-wide transition	\$\$	TBA	Capital budget bid and grant funded	Climate program
	MORE 1	Support businesses-to develop Food Organics Garden Organics (FOGO) waste management systems	\$	TBA	Allocated staff time (salaries)	Waste
	MOTE 1	Work with stakeholders on an initiative to employ an agricultural field officer to provide tailored support to farmers on reducing emissions and adapting to climate change	\$\$\$	TBA	New initiative (explore grant options)	Climate program
	MOCS 7	Continue to support youth-led climate and sustainability action, and elevate young people's voices in community communications and education activities (i.e. FCE1)	Staff time	Ongoing	Allocated staff time (salaries)	Youth services

# IMPLEMENTATION AND FUNDING

Council's Climate Policy will guide decision making about how this plan is implemented and will be reviewed every 4 years for relevance. The goals and targets of this plan provide the framework through which action will be monitored and reported.

Much of climate action for Council's goals involves a reorientation of existing internal processes. For that reason, about 75% of actions in this four year plan do not require additional funds, but will occur within existing reviews of practice. This will align with Council's obligations under the Local Government Act, to incorporate sustainability and climate change considerations in decision making.

Actions will be integrated into Council's annual business planning processes and embedded into Council's integrated planning and risk management frameworks.

In addition to this plan, A library of resources and tools have been developed to assist staff in this task:

- A master list of actions to assist officers to review and reprioritise actions in response to new knowledge, policy, legislative and technological change. This approach builds adaptability into our plan by allowing future actions to change and new ideas over time. It is also responsive to the developing technological and commercial markets.
- A Zero Net Emissions Pathway Report that documents the boundaries of Council's carbon inventory and its approach to carbon accounting and reporting.<sup>14</sup>
- Council's Azility System (our emissions monitoring software).
- Incorporation of the organisational Climate Risk Assessment relating to climate change into the Corporate Risk Register.
- Using the Adaptive Capacity Checklist (sourced from the Western Alliance for Greenhouse Action)

---

<sup>14</sup> This is the approach in place at the time of writing this report and we acknowledge it has limitations. We have addressed this by incorporating a strategic direction for 'Continue to develop and improve Council's carbon inventory and methodology for achieving net zero emissions.'

# FUNDING

When considering funding options, it is important to recognise that the cost of inaction far outweighs the cost of action: research shows that every \$1 allocated to adaptation and emissions reductions now will save up to \$6 in future avoided costs<sup>15</sup>. Renewable energy and energy efficiency upgrades often make good business cases and will pay for themselves a few years after the initial investment is made. Effort has also been taken to identify actions that can be taken within existing resources simply by adjusting existing programs using a climate lens.

Nonetheless, additional funding will be required for about 20% of actions, particularly for actions such as facility upgrades and community-facing projects. Grants from State and Federal Governments frequently become available for which many priority actions will be eligible, and as wider momentum for climate action builds, it is likely that grant opportunities will become more abundant.

Some signature programs that could be suitable to source finance include:

- Victorian Energy Upgrade Program
- Emissions Reduction Fund
- National Partnership Agreement for Disaster Risk Reduction
- Sustainability Victoria and other state government programs

To address potential resourcing barriers, a short (4 year) and long (10 year) financial plan will be developed to identify the resources required to implement the 2023-2027 Action Plan and future Action Plans.

---

<sup>15</sup> [enews.nibs.org/t/r-A40041C9475B66082540EF23F30FEDED](https://enews.nibs.org/t/r-A40041C9475B66082540EF23F30FEDED)

# MONITORING AND REPORTING

This plan is not intended to be a 'set and forget' document. Climate change is a dynamic issue that involves a complex web of interrelationships and contextual considerations, so any plan to address it will need to be flexible. To build adaptability into the response, the plan will be implemented through Council's integrated planning and risk management frameworks, and Council managers will be responsible for monitoring and reporting progress on their actions to Council's executive management team each quarter.

Council's Manager Sustainability & Assets will be responsible for the preparation of an annual climate action report that will detail and report on the actions Council has taken and its progress towards achieving set targets. This report will also communicate progress to internal and external stakeholders.

Council's website will house the related reports and stories for our community to access.



# APPENDICES



# APPENDICES

## APPENDIX 1: Adaptive Capacity Checklist

Visit [adapt.waga.com.au/cb\\_pages/adaptive\\_capacity\\_checklist.php](http://adapt.waga.com.au/cb_pages/adaptive_capacity_checklist.php) for more information, resources, and training support.

### Leadership and resourcing:

- How engaged is your executive leadership team?
- Have your current Councillors been engaged on the need to adapt?
- Have resources been allocated to develop an adaptation response?

### Climate adaptation knowledge:

- Has the council conducted an organisation wide risk or vulnerability assessment?
- Do individual council teams understand climate risk and how to access and apply expertise?

### Strategic response:

- Does council have an adaptation strategy?
- Does council identify climate change risks in their risk management framework?

### Organisational culture:

- Do staff have agency, autonomy and the ability to innovate?
- Does skill development contribute to individual and organisational learning capacity?

### Collaboration:

- Does internal collaboration function effectively to solve adaptation issues that arise?
- Has adaptation response been integrated into key council policies or strategies?
- Is council's adaptation response transparent?

### Integration:

- Is council's adaptation response accountable to the community?
- Is there a process for reflection and learning?

### Adaptation governance and decision making:

- Does decision making utilise the precautionary principle?
- Is decision making robust and able to accommodate uncertainty?
- Is decision making proportional to the level of risk?
- Are adaptation decisions made fairly?
- Are adaptation responses budgeted?

**APPENDIX 2: Murrindindi Shire Council community-wide emissions by source, sector and subsector (largest to smallest contribution).**

SOURCE	SECTOR	SUBSECTOR	EMISSIONS (tCO <sub>2</sub> e)
Agriculture	Meat cattle	Enteric fermentation	116,680
Transport	On road	Diesel	84,109
Electricity	Residential		27,624
Transport	On road	Petrol	26,783
Electricity	Commercial		23,946
Agriculture	Sheep/lambs	Enteric fermentation	20,698
Electricity	Industrial	Utilities	18,581
Agriculture	Meat cattle	Manure management	13,209
Gas	Residential		10,221
Electricity	Industrial	Manufacturing	5,776
Agriculture	Hay/silage	Agriculture soils	3,140
Electricity	Industrial	Construction	1,566
Waste	Water	Residential	1,333
Gas	Commercial		1,050
Electricity	Industrial	Transport	1,029
Electricity	Industrial	Machinery	907
Electricity	Industrial	Mining	850
Electricity	Industrial	Utilities	815
Agriculture	Dairy cattle	Enteric fermentation	814
Waste	Landfill	Commercial/Industrial	731
Agriculture	Sheep/lambs	Manure management	724
Electricity	Industrial	Wood	632
Waste	Landfill	Residential	608
Waste	Water	Industrial	578
Waste	Landfill	Construction/Demolition	529
Electricity	Industrial	Non Metallic	402
Agriculture	Dairy cattle	Manure management	383
Agriculture	Liver poultry	Manure management	336
Gas	Industrial	Manufacturing	253
Agriculture	Other crops	Agriculture soils	70
Gas	Industrial	Construction	69
Agriculture	Vegetables	Agriculture soils	60
Gas	Industrial	Transport	45
Gas	Industrial	Machinery	40
Gas	Industrial	Mining	37
Gas	Industrial	Wood	28
Gas	Industrial	Non Metallic	18
<b>LAND USE</b>			<b>-4,500</b>
<b>TOTAL</b>			<b>360,176</b>

# APPENDICES

## APPENDIX 3: Priority risks for action through this Plan

In 2021, Council undertook a Climate Change Risk Assessment for the organisation and municipality. Below is a list of priority risks that are addressed through this plan. Relevant actions in the 3-year priority action plan are referenced in the right-hand column.

Note that many of the risks listed below are a combination of several individual risks assessed in the Climate Risk Assessment, which have been combined so that they may be more easily integrated into Council's Risk Management system. Risk Assessment IDs are provided; these provide a reference to the full suite of risks in the Risk Framework (TRIM ref. 21/52821). The Risk Framework also holds a record of non-priority risks and notes collated from consultation and research.

AREA	RISK SUMMARY	RISK ASSESSMENT ID	RELEVANT PRIORITY ACTION ID
People	Staff and community exposure to extreme heat, resulting in injury/loss of life, mental health issues, service disruption, and legal liability risks. This risk is exacerbated by the increased likelihood of power outages during heatwaves. <i>Rating: extreme</i>	MCS3, CS1, RC1	MICA1, AGR1, MOTE4, MOCS1
People	Staff and community exposure to bushfire, resulting in injury/loss of life, heightened mental health issues, service disruption, and legal liability risks. <i>Rating: high</i>	MCS4, CS2, RC1	ARE1, AGR1, AEM1, MOTE4, MOCS1, MOCS3
People	Council must respond to an increasing number of weather-related emergencies, resulting in staff job stress and mental health issues, strain on Council resources and a reduced ability to deliver services as resources are diverted from elsewhere. <i>Rating: high</i>	RC6	FBS1, FGR3, FCC5, AEM1
People	Extreme weather damages private assets, resulting in loss of community financial stability and wellbeing. Extreme weather such as fire events may also cause people to leave certain areas as occurred after the 2009 bushfires, causing an erosion of social networks and a reduced ratepayer base. <i>Rating: high</i>	MCS11, MCS12, DS2, DS3	ADS1, ADS2, AEM4, MOCS3, ARE1, FCE1, MOCC1
Assets	Loss or damage of Council-managed transport infrastructure due to bushfire, storms, and extreme heat, resulting in financial costs and potential loss of life if residents are unable to evacuate. This risk also presents a significant ongoing cost as increased transport infrastructure maintenance is required. <i>Rating: extreme</i>	MEM3, AI8a, AI8b, AI8c, AI9a, AI9b, AI9c	ABS2, FAM2, AEM4
Assets	Extreme weather including bushfire and storms damage Council assets (excl transport infrastructure), resulting in financial costs to repair and reduced ability to provide essential emergency support services <i>Rating: high</i>	AI1, AI2,	MICA1, ABS2, FAM2, AEM4
Assets	Trees and tree limbs fall more frequently due to heat and water stress, resulting in injury/death, damage to property, and increased costs to manage, including insurance costs. <i>Rating: high</i>	AI3,	MODS1, ACA6, ACA3

AREA	RISK SUMMARY	RISK ASSESSMENT ID	RELEVANT PRIORITY ACTION ID
Assets	Increased landslides due to rainfall intensity block transport routes and incur financial costs as Council must remediate and repair assets <i>Rating: high</i>	AI18	Monitor through FBS1
Assets	Council transfer stations cause a bushfire due to large fuel loads of organic waste <i>Rating: high</i>	AI20	ARE2
Assets	Greater demand on Council facilities for use as emergency relief centres and for general community support during and after periods of extreme weather, with risks of injury/death if facilities are inadequate. <i>Rating: high</i>	EM2	MICA1, FAM2
Emergency management	Extreme weather causes failure of IT, communication and electricity infrastructure, hindering Council and community emergency responses, with risks of injury/death <i>Rating: high</i>	EM6a, EM6b, EM6c, MEM2	ABS1, MICA1, FAM2
Environment	Changes in weather patterns cause a change in ecosystem functioning, water stress, and increased incidence of pests and weeds, reducing the health of the environment and its ability to provide essential services to the community, incurring increased costs to manage the impact. <i>Rating: critical (preliminary assessment only)</i>	EN2, EN4, EN5	ARE4, ARE5, ARE6, MODS1, MOCS4, MORE3
Environment	Increased frequency and severity of bushfires degrades ecosystems and causes potential species loss, with increased costs to manage the impact. <i>Rating: critical (preliminary assessment only)</i>	EN7, EN6	ARE4, ARE5, ARE6, MODS1, MOCS4, MORE3
Economic Development	Increased extreme weather, hotter temperatures and drought threatens agriculture and tourism industries, with direct impacts on the community as well as Council's financial stability through loss of rates. <i>Rating: major (preliminary assessment only)</i>	MCS9, RC11, RC12	MOCC5, FCC2, MOCC1, MOCC2, MOTE4
Risk and Corporate Services	Increased exposure to litigation due to climate-related decisions (or lack thereof), especially in relation to development applications, failing to provide adequate information on climate risks, and/or failing to meet legislated requirement to consider climate change in decision-making. <i>Rating: major (preliminary assessment only)</i>	RC4	FCC3, FCC4, FGR6, FGR2, FGR4, FGR3, FCC5
Opportunity	Energy efficiency and renewable energy technology is cheaper and more available, with cost savings, increased thermal comfort, and increased resilience of buildings to extreme weather events. <i>Rating: opportunity</i>	ME2	MICC2, MICA1, MICC4, MOCC11, MOCA1, MOCC2, MOCC17, MOCC9, MOCC10
Opportunity	Increased demand for renewable energy and carbon offsets with potential to develop these industries in the shire, resulting in economic benefits as well as increased agricultural productivity and resilience. <i>Rating: opportunity</i>	ME3, ME4	MOCC4, FCC2, MOCC1, MOCC2, MOTE1, MOTE2

# APPENDICES

## APPENDIX 4: Potential actions to be implemented from 2026 onwards

REF #	AREA	BUSINESS UNIT	ACTION
FGR7	Foundational	Governance and Risk	Ensure the organisation's risk management framework is aligned with Environmental Management System ISO 14001 Standards.
FCC4	Foundational	Climate Program	Conduct outstanding risk assessment deep dives for environmental management and development services areas.
ACC1	Adaptation	Climate Program	Review and if necessary, repeat organisational climate change risk assessment, incorporating latest climate projections.
MICC6	Mitigation	Climate Program	Offset our residual emissions by purchasing accredited carbon offsets (or credits).
MIBS3	Mitigation	Business Services	Publicly report all data associated with air travel including number of flights and emissions while campaigning for fast rail, digital attendance of events and minimising flights where possible. All air travel emissions are to be offset domestically.
ADS6	Adaptation	Development Services	Strategically identify Council's role in promoting food security (master plans for protection of farming zones etc.).
ADS7	Adaptation	Development Services	Work with Community Development team to review Council's Recreation Strategy, ensuring new Council facilities are located in areas of lower climate risk as identified through the Planning Scheme review.
AGR2	Adaptation	Governance and Risk	Expand mental health support for staff, particularly around dealing with major emergencies and climate change impacts.
AGR3	Adaptation	Governance and Risk	Work with suppliers and contractors to implement 3rd party systems for reporting on emissions metrics.
MOCC 2	Mobilisation	Climate Program	Collaborate with internal departments to promote community adoption of climate-adapted and low emissions technologies and consideration of climate risk among Council's networks (business, suppliers/contractors, community groups, agencies).
MOCC 6	Mobilisation	Climate Program	Run sector-based educational activities and behaviour change campaigns on topics such as local climate solutions, managing key risks, community energy, communicating on climate change, advocating for change. Deliver information pack for most-spoken non-English languages within the community.
MOCC7	Mobilisation	Climate Program	Run a future farms and homes festival with partners. Include workshops, talks and tours centred around the question: what would a comfortable, secure home or profitable farm look like in 2035 and what will we have to do to get there?
MOCC8	Mobilisation	Climate Program	Run a leadership or mentorship program to upskill/empower community leaders and youth to develop projects and promote climate action through networks.
MOCS2	Mobilisation	Community Services	Liaise with mental health service providers to ensure they are aware of and have resources to assist with climate anxiety.
ABS3	Mobilisation	Business Services	Review and consolidate Council's assets to reduce unnecessary costs and increase Council's overall financial security.
MODE3	Mobilisation	Development Services	Work with potential renewable energy developers to secure local investment in projects or other benefits for the local community.
MOGR2	Mobilisation	Governance and Risk	Collaborate with relevant business units (especially assets teams) to educate service providers on how to apply sustainability principles in the procurement policy.

REF #	AREA	BUSINESS UNIT	ACTION
MORE4	Mobilisation	RRC and Environment	Utilise strategic vegetation mapping (if available) to locate Council led nature restoration projects in areas that have greatest benefit for ecosystem health and flood mitigation. Support community-led projects to do the same.
MOTE1	Mobilisation	Tourism and Events	Promote the adoption of Climate Smart Agriculture or Community Supported Agriculture Schemes, including production of native foods.
MOTE5	Mobilisation	Tourism and Events	Provide information about energy efficiency and renewable energy technologies, and funding opportunities, to business and industry sectors.
MOCC17	Mobilisation	Climate program	Investigate options for a community information service for home sustainability including energy information and advice. Investigate how Council can encourage sustainable home builds and retrofits.
MORE3	Mobilisation	RRC and Environment	Distribute scientific research on the impacts of climate change on natural environments, the climate solutions nature provides, and how we can support ecosystem health.
FCC2	Foundational	Climate program	Establish a Climate Action Coalition to discuss local issues, coordinate and collaborate between different sectors, inform government policy, mobilise resources, and launch or support programs and services that address local needs.
MOTE2	Mobilisation	Tourism and Events (Eco Dev)	Support investment attraction and economic diversification into new markets (e.g. renewable energy, carbon trading, new tourist markets).
ACC3	Adaptation	Climate programs	Investigate the feasibility and mechanisms to protect significant trees, in both urban and rural settings (for shade, amenity, cultural and habitat values), including community consultation on options.
MOCC15	Mobilisation	Climate programs	Facilitate the establishment of carbon offset demonstration sites on private or public land.

# APPENDICES

## APPENDIX 5: Community perspectives

Some sample quotes from the Climate Action and Shaping Our Future surveys are below:

- “ Climate change mitigation and environmental protections have to be the number one lens through which we plan everything until atmospheric gases that are blanketing the earth are stabilized/reversed.
- “ Whilst climate change awareness is important, and we all need to make informed decisions, I don't agree with so much of my rates being spent by the Council on a Climate Change Action Plan. Local Council should get road and waste issues in hand first.
- “ Council plays a vital role in supporting the transition to a net zero (and climate resilient) region, because you are well connected to the community and know what is needed and opportunities. This can be done by educating and leading the community and facilitating financially with rebates, loans, bulk buy schemes etc.
- “ I am completely and utterly devastated that the planet is being destroyed. I am terrified for my future and the future of generations to come. I am heartbroken by the ongoing damage to planet, wildlife and people and I am terrified that it will only get worse as floods, fires, droughts, etc., continue to kill innocent people and harm communities. I am only 25 and myself and many of my friends and peers don't even know if we should have children when they will inherit an unsafe, uninhabitable, disaster plagued earth.
- “ Attribution, with any certainty, of any of the above to climate change is pure fantasy. I assume you mean man made climate change.
- “ Climate change is a big part of my decision not to have children
- “ The council should consider working for Murrindindi, as it will never make an impression in saving the planet, which actually doesn't need councils help
- “ I'm really proud of the council taking a stand on this, despite some opinions within the community. Murrindindi is as much, if not more affected by climate change than many regions, and by simply ignoring the facts, it will not improve. History will always tell the truth, so at least, even if there are naysayers, the council has taken action and that is on the record. There's so much to be done, but little steps are a great start.
- “ It is real. Don't make it a talk fest, act and lead by example.

**APPENDIX 6: How this plan was formed**

This plan was developed over a 2-year period from January 2021 to December 2022. The methodology below was informed by a review of best-practice local government climate action planning for small and rural Councils, and advice from colleagues across the state of Victoria. The final structure and content of the Plan was informed by advice from an external strategic planning consultant.



# THANK YOU

## NEED COPIES OR HAVE QUESTIONS OR COMMENTS?

Copies of this Report are available at Council offices or online at [murrindindi.vic.gov.au](http://murrindindi.vic.gov.au)  
If you would like additional copies of this Report or if you have any questions or feedback about this Report, please get in touch with us.

# CONTACT US

## VISIT US

**Alexandra:** 28 Perkins Street

**Yea:** 15 The Semi Circle

**Kinglake:** 19 Whittlesea-Kinglake Road

**Mobile Library and Customer Service:** visit our website for locations and times

## CONTACT US

**Phone:** 5772 0333

**Email:** [customer@murrindindi.vic.gov.au](mailto:customer@murrindindi.vic.gov.au)

**Website:** [murrindindi.vic.gov.au](http://murrindindi.vic.gov.au)

**@murrindindishirecouncil**

## MAIL US

Murrindindi Shire Council

PO Box 138

Alexandra VIC 3714



[murrindindi.vic.gov.au](http://murrindindi.vic.gov.au)

