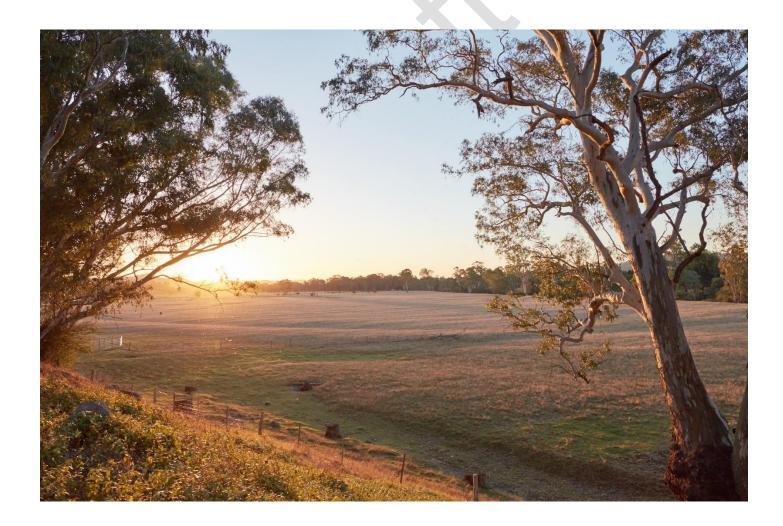


Climate Change Action Plan: Towards 2035



Murrindindi Shire Council Draft Climate Change Action Plan



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

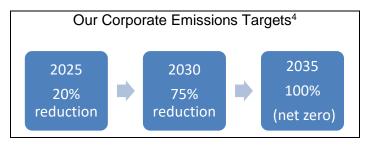
Climate impacts threaten Council's ability to provide essential community services and infrastructure¹, and Council has a legislated responsibility to act².

In response to the crisis, Council has committed to³ reducing our emissions to net zero by 2035, preparing for more extreme weather, and supporting our community to transition to a climate-safe way of life.

We've already made significant progress. Through renewable energy and efficiency upgrades, we have lowered our emissions by 10% 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 reflect 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.



¹ As identified in our Organisational Risk Register
² The Local Government Act 2020 and Climate Change Act 2017 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 zeroemissions, 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

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

⁴ Reductions based on 2016/17 emissions

Overview of the Climate Chan	ge Action Plan Goals	Targets
	Community Mobilisation Our organisation empowers community and business led action and supports indigenous reconciliation	 100% of customer-facing staff have received climate communication training by 2025 10% of the shire's community participate in mobilisation initiatives by 2030 Murrindindi Shire supports communities and businesses to reach net zero by 2035.
	Cimate Adaptation Our organisation is adapting well to a changing climate.	 The area of Council managed bushland regenerated, protected or managed for fire risk is expanded each year 50% of Council's permanent staff are trained in natural disaster response by 2025 5 key Council owned disaster recovery centres are retrofitted for climate resilience by 2035
	Climate Mitigation Our organisation produces net zero emissions with interim targets (based on 2016/17 levels)	 Council's emissions are 20% lower than by 2025 Council's emissions are 75% lower by 2030 Council's organisational emissions are net zero by 2035 40% of Council's passenger vehicles are electric by 2028, and 100% by 2032 50% of municipal organic waste is diverted from landfill
	Governance Foundations Our organisation effectively manages the risks and opportunities of climate change	

Murrindindi Shire Council Draft Climate Change Action Plan



The Big Picture

Climate change is real. It is caused by human activity⁵.

Pollution from burning fossil fuels and other activities traps the sun's heat is trapped in the atmosphere, warming the climate and causing changes in our weather patterns such as intense bushfires, heatwaves and storms. Droughts and floods are also becoming more common 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 last ten years 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.⁶

Without deep cuts to greenhouse gas emissions, our livelihoods, our infrastructure, our environment, and our way of life are at risk.⁷

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. We believe it could look like this:

- Our landscapes are abundant, supporting native species and people alike.
- Our homes, businesses, and vehicles run on clean, cheap renewable energy.
- Our community is active, caring, connected, and resilient to change.
- We contribute to a circular economy where objects are repaired and reused again and again.
- Our local economy is diverse, and we take advantage of new industry opportunities in a zero emissions world.
- Visitors come from afar to enjoy our delicious local produce and our wild places.
- Other regions look to our shire as a climate leader, and an example of a better future.

Over the last few months, 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.

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

⁶ As reported in Murrindindi Shire Council 2010, 2012, 2014 & 2020 Council Annual Reports

⁷ IPCC (2022), Climate change 2022: Impacts, Adaptation and Vulnerability: Summary for Policymakers.

Murrindindi Shire Council Draft Climate Change Action 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

Text box:

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 can still release a small amount of greenhouse gases, if we take out the same amount as what we put in. 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

Murrindindi Shire Council Draft Climate Change Action Plan



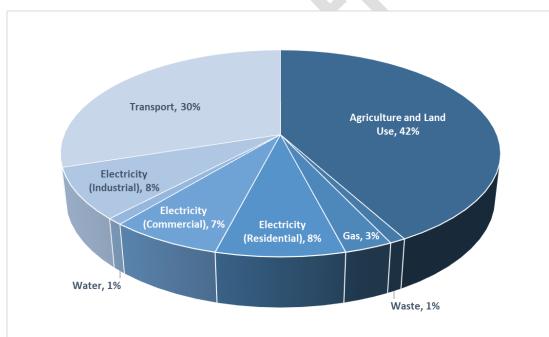
Our Community

Emissions

Below is Murrindindi Shire's greenhouse gas emissions 'profile'. To meet the target of net zero emissions by 2035, these emissions need to reduce by at least 7% 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 (23% total) 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 1.

This profile 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 (see https://snapshotclimate.com.au/resources/)



Murrindindi Shire Emissions - 360,000 tCO2-e8

Figure 1: Community Emissions from July 2019 - June 2020 (most recent available data). Source: snapshotclimate.com.au

⁸ TCO2-e refers to tonnes of carbon dioxide (CO2) equivalent. This is a metric measure that is used to compare emissions from various greenhouse gases by converting amounts of other greenhouse gases, such as nitrous oxide and methane, to the equivalent amount of CO2.

Murrindindi Shire Council Draft Climate Change Action Plan

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 2.

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 and storms, especially for vulnerable people such as children and the elderly. In particular, the south-west section of the shire is bushfire-prone, and low-lying areas are subject to increased flood risk.
- 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 and carbon sequestration, and wellbeing support
- Warmer temperatures bring more pests and weeds that threaten our agricultural industry and natural environments





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

Opportunities: There are also some new opportunities for our shire in the transition to a zero-emissions way of life:

- Sustainable technology is cheaper and more widely available, lowering energy use and making buildings more resilient to extreme weather.
- Growing demand for renewable energy and carbon offsets with 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.
- 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 and appreciation 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.

- 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 not only reduce their carbon emissions but also offer associated benefits, such as healthier soils, more productive pastures and improved livestock nutrition. Peak industry bodies have already adopted carbon emission targets and practical approaches. 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.
- 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's decision to cease logging in the Central Highlands Forest. There is significant opportunity to engage with and support these families and businesses to plan for their future with consideration of climate change risks and opportunities.

Existing 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 community groups in the Shire have formed to tackle this issue: 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.



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 7026 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.

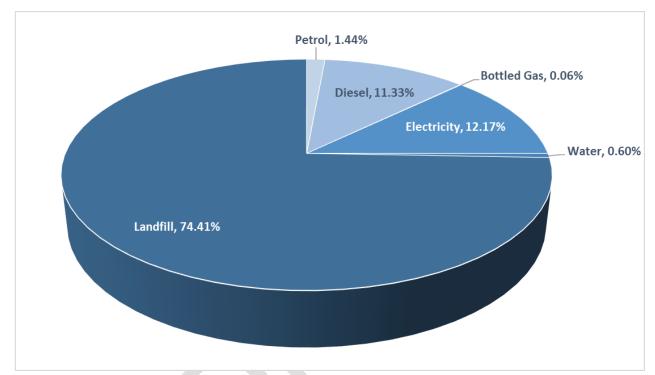


Figure 3: Corporate Emissions from July 2020 - June 2021. Source: Internal data collection. Total emissions: 7026 tCO2-e

Emissions

A breakdown of the greenhouse gas emissions produced annually from Council's operations is shown above. This profile helps us to better understand where Council's emissions are coming from, so that we can focus on the biggest sources.

Unlike many other councils, we manage a landfill, which releases emissions from decomposing organic waste (kitchen scraps and other plant matter) that have been deposited since the landfill opened.

As of this year (2022), Council's emissions have been reduced by the 'electricity' component (12.17%). In January 2022, Council made the switch to 100% renewable energy by joining the <u>Victorian Energy Collaboration</u>, a project which saw 46 Victorian Councils purchase renewable energy from Victorian wind farms. This makes it the largest ever emissions reduction project run by the Australian local government sector.

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

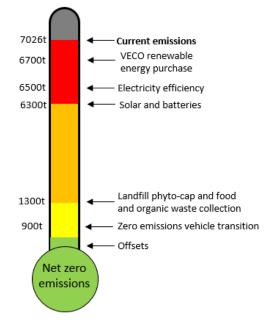


Getting to Zero: Our Emissions Pathway

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.

The temperature gauge below 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 as a last resort for any emissions that could not be reduced otherwise. The following emissions reduction actions are planned. For more information about our emissions profile and pathway, Council has made a report available on the Loop platform⁹.

- 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.
- Cap the existing landfill using plants and soil (a **phyto-cap**). To continue providing a waste collection service, we will then open a new cell.
- Investigate other ways to reduce landfill emissions such as waste to energy technologies.



- Introduce a residential food and organic waste collection (FOGO) service by 2026
- 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.**

Text box: Did you know?

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 percent methane and 50 percent carbon dioxide (CO₂). Methane is a potent greenhouse gas that is 28 to 36 times better than CO₂ at trapping heat in the atmosphere over a 100-year period.¹⁰ Landfill emissions are the main component of the corporate emissions for Council. But every resident produces waste and can play their part in waste and emission reduction.

⁹ 'Carbon Inventory Boundary and Emissions Pathway Report'

¹⁰ IPCAA AR5 Synthesis Report: Climate Change 2014



Impacts and Opportunities

Local governments are on the front line of climate impacts¹¹. 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' from 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 decisionmaking, 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.

¹¹ Cities Power Partnership (2021). *Neighbourhood Issue: Climate Costs and Risks to Council.*



Building on Strong Foundations – Existing Council Action

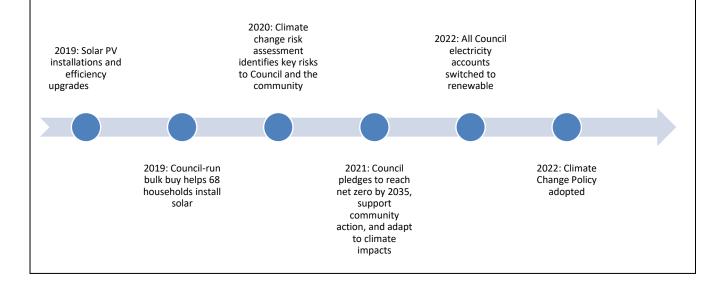
Council has reduced our emissions by 10% since 2017, by installing more than 130kw of solar power on Council buildings, upgrading hundreds of street and office lights to LEDs, and other energy efficiency upgrades. In January 2022, we signed up to the Victorian Energy Collaboration (VECO), locking in 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 2 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.





Case Study: Y Water Discovery Centre

The Y Water 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.



Case Study: Enabling the Transition to Electric Vehicles

Murrindindi Shire is working to install a range of electric Vehicle chargers in the municipality.

Two medium speed charge stations have been installed in Kinglake.

Council is working with Evie networks to install high speed chargers in Alexandra in 2023, as part of a Victoria wide network to encourage regional travel.

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



The Climate Action Plan includes action to convert the Council fleet to zero carbon vehicles and plant.



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 120 community members, through a community survey, pop-up kiosks, and meetings with key community groups and organisations including Landcare, business associations, healthcare providers, Taungurung and Wurundjeri Traditional Owners, 2030Yea, the Murrindindi Climate Network, and Kinglake Rotary. 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:

- Many in our community are extremely concerned about climate change
- Others would prefer Council to focus on core business activities
- A small but passionate minority do not want Council to take action on climate change
- Our community is already feeling the impacts of extreme weather, changes to average weather patterns, and increased cost of living.
- Many would like to take action personally but did not have the money or spare time to do so.
- Most respondents were either purchasing renewable energy or had installed solar, and had upgraded energy and water efficiency in the home or business
- Community groups working on this issue are run by a few core volunteers and additional support would help them to remain sustainable
- There is a need to support those on a low income, for whom many climate actions are not accessible.

Respondents also gave their top suggestions for Council action. These have been reflected in the plan and are listed below.

Suggestion	Action Plan
Lead by example, by reducing our own emissions and adapting our operations	Strategic Principles, and 'Mitigation' and 'Adaptation' sections
Provide education, advice and local case studies in an ongoing conversation with the community about climate change	MOCS5; MCE1; MOCS1; MOTE1; MORE3; MOCC1; MOCC2; MOCC5; FCE1
Provide grant funding and other access to finance for community groups and businesses for sustainable technologies and projects	MOCC11; MOCC2; FCC2
Increase vegetation on Council land, and address deforestation and illegal land clearing	MODS1; ACA6
Encourage and advocate for better public transport services, carpooling, and installing electric vehicle chargers	MOCC3; MOCC14; MOTE2
Support the transition to low emissions agriculture, including electric machinery	MOTE1
Improve recycling and green waste collection	Addressed through Council's Waste Strategy
Support healthy natural environments and indigenous land management	Strategic Principles, MOCS4; ARE1; ARE4; ARE5; ARE6



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, 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 Actions

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 % by 2030 (reduction based on 2016/17 baseline levels).
- 3. **Climate adaptation:** Minimising the impacts of climate change on Council's infrastructure and services
- 4. **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 for Council to take advantage of maturing technology, and implement adaptation measures for a heating climate and the increase in extreme 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 3, 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

Action Areas



Figure 5: Action Plan – Strategic Overview

	1. Governance Foundations	2. Climate Mitigation	3. Climate Adaptation	4. Community Mobilisation
0.000	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
l algers	Council is effectively monitoring and reporting on organisational climate action by disclosing information to the public in an annual report every year. Council scores highly on the Adaptive Capacity checklist (https://adapt.waga.com.au), with less than 5 areas of the checklist 'requiring action' by 2025	Council's organisational emissions are net zero by 2035. Council's emissions are 20% lower than 2016/17 levels by 2025 Council's emissions are 75% lower than 2016/17 levels by 2030 100% of Council's passenger vehicles are electric by 2032.	The area of Council managed bushland regenerated, protected or managed for fire risk is expanded each year 50% of Council employees are trained in natural disaster response by 2025 5 key Council owned disaster recovery centres are retrofitted for climate resilience by 2035	100% of customer-facing staff have received climate communication training by 2026 10% of the shire's community (or around 1,400 individuals, community groups or businesses) participate in mobilisation initiatives by 2030 Murrindindi Shire supports communities and businesses to reach net zero by 2035.
	1.1 Establish financial management systems that support climate action	2.1 Implement identified emission reduction projects in the organisation that cost effectively support Council's transition to net zero emissions by 2035.	3.1 Ensure Council's assets are suitably constructed and managed to weather extreme climatic conditions	4.1 Continue to strengthen and deliver on Council's commitment to Indigenous reconciliation
71000	1.2 Ensure staff and Councillors have the necessary knowledge and training to effectively manage climate change risks and the net zero transition	2.2 Continue to develop and improve Council's emissions inventory and methodology for achieving net zero emissions.	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.	4.2 Engage with stakeholders to build an understanding of how to effectively take action on climate change across the Shire.
	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.		3.3 Improve Council's organisational capacity in emergency and natural disaster response and recovery.	4.3. Help the community build capacity in emergency and natural disaster prevention, response and recovery
	1.4 Ensure compliance with relevant legislation			4.4. Provide direct resourcing, incentives, and support to households, community groups, businesses and farms for climate mitigation and adaptation activities



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	
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

Definition	Developing internal knowledge and systems so that climate action is considered in decision making across the organisation.						
Goal Target	Co org Co	uncil is eff ganisation	effectively managing the risks and opportunities of a ch ectively monitoring, reporting and verifying that climate by disclosing information to the public in an annual rep es highly on the Adaptive Capacity checklist, with less ion'	e actions are ort every ye	e happening ear.		
Strategic Directi	on	Ref #		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
		FCC3	Educate staff and Councillors on managing climate risk, having effective climate conversations, including the risk of climate grief. Develop a climate change induction module for new staff.	Staff time + \$	2024/25 onward	Staff time (salaries) + operational budget bid	Climate program
1.2 Ensure staff and Councillors have the necessary knowledge and training to effectively		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
manage climate risks and the net transition		FAM2	Develop Environmentally Sustainable Design guidelines for new projects and developments, and infrastructure maintenance and upgrades, including integrated water management strategies	Staff time	2024/25 onwards	Can utilise resources from other	Sustainability and assets



Definition	Developing internal knowledge and systems so that climate action is considered in decision making across the organisation.							
Goal	Our organi	Our organisation is effectively managing the risks and opportunities of a changing climate.						
Target	org • Co	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.						
Strategic Dire		Ref #		Cost Estimate	Time	Funding & Notes	Lead	
						Councils, IDM		
		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	
1.3 Implement Council's stra planning, poli	tegic		Propose relevant strategies and actions from the CCAP in each Council Plan process.	Staff time	Ongoing	Allocated staff time (salaries)	Environment	
processes tha Council's abil manage risks	ity to	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	
opportunities of climate change in delivery of Council services.		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	Allocated staff time (salaries)	Governance and Risk	



Definition	Developii organisat	•	knowledge and systems so that climate action is cons	idered in deo	cision makir	ng across the	
Goal	Our orga	Our organisation is effectively managing the risks and opportunities of a changing climate.					
Target	or • C	ganisation	ectively monitoring, reporting and verifying that climat by disclosing information to the public in an annual re es highly on the Adaptive Capacity checklist, with less ion'	port every ye	ear.		
Strategic Dire	ection	Ref #		Cost Estimate	Time	Funding & Notes	Lead
		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)	Governance and Risk
		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 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 co with relevant	•	MODS 4	Allocate resourcing to enforcement of the Victorian government environmental and native vegetation regulations	Staff time	2023/24 onward	Funds allocated	Development services



Response Area 2: Mitigation

Definition Goal Targets	2030, the m	and 75% I obilisation rganisatior	crisis at its root by achieving net zero by 2035 and its 2030. This section covers organisational emissions section. In produces net zero emissions. In organisational emissions are net zero by 2035.				
	•		energy comes from 100% renewable sources by 2				
	•	ī.	passenger vehicles are zero net emissions by 203			-	
Strategic Direction	on	Ref #	Description of action	Cost	FY	Funding source	Lead
2.1 Implement identified emission reduction project the organisation cost effectively	ts in that	MICC2	Ensure Council continues to operate on 100% renewable electricity, and install solar and batteries where appropriate Projected emissions reduction ¹² : 13%	Staff time	Ongoing	Allocated funds committed (operational budget)	Procurement
supports Counci transition to net a emissions by 203	zero	MICC3	Transition to zero emissions fleet, starting with electric passenger vehicles and light machinery, to move all such vehicles to zero emission options 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 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

¹² From 2016/17 levels



Definition	Addressing the crisis at its root by achieving net zero by 2035 and meeting our interim targets of 20% of 2016/17 lev 2030, and 75% by 2030. This section covers organisational emissions only - municipal emissions reductions actions the mobilisation section.							
Goal	Our o	rganisatior	n produces net zero emissions.					
Targets	•	 Council's organisational emissions are net zero by 2035. Council's energy comes from 100% renewable sources by 2022. 						
Strategic Direct	tion	Ref #	Description of action	Cost	FY	Funding source	Lead	
		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	
		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) 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. Monitor & manage the site to reduce emissions. Projected emissions reduction MIRE 1-4:45%	Waste and resource recovery plan	2023/24	Funds allocated	Waste	



Definition	Addressing the crisis at its root by achieving net zero by 2035 and meeting our interim targets of 20% of 2016/17 leve 2030, and 75% by 2030. This section covers organisational emissions only - municipal emissions reductions actions a the mobilisation section.								
Goal	Our organisation produces net zero emissions.								
Targets	•	 Council's organisational emissions are net zero by 2035. Council's energy comes from 100% renewable sources by 2022. 							
Strategic Direction	on	Ref #	Description of action	Cost	FY	Funding source	Lead		
		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	2024/25 onward	Funds allocated	Waste		
		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	2023/24 onward	Allocated staff time (salaries)	Finance		
2.2 Continue to develop and imp Council's emissi		MICC7	Report on energy, water and emissions in Council's annual report, and business unit reports	Staff time	2024/25	Allocated staff time (salaries)	Climate program		
inventory and methodology for	r	MICC8	Investigate opportunities to report, measure and manage additional emission sources from Council's supply chain not currently	Staff time	2024/25 onward	Allocated staff time (salaries)	Climate program		



Goal Targets	Our o	Council's	n produces net zero emissions. s organisational emissions are net zero by 2035.				
	•		s energy comes from 100% renewable sources by s passenger vehicles are zero net emissions by 20				
		Ref #	Description of action	Cost	FY	Funding source	Lead
achieving net zero emissions.			incorporated into Council's carbon inventory (scope 3 emissions)				
		MOCC4	Continue to investigate and where feasible implement local tree planting programs to meet Council's carbon offsetting targets and obligations	Stage 1 existing fund	2023/24 Investigate 2026-30 implement	New initiative (operational budget bid for ongoing fund)	Climate program
		MICC5	Develop a carbon offsetting policy or guidelines that defines the strategy for how Council will offset to meet net zero target	Staff time	2024/25 onward	Allocated staff time (salaries)	Climate program



Response Area 3: Adaptation

Definition	Minimising the impacts of climate change on Council's infrastructure and services								
Goal		sation is adapting well to a changing climate.							
Targets	• 50%	 200 hectares of Council managed land is regenerated, protected and managed to enhance biodiversity values. 50% of Council employees and elected representatives are trained in natural disaster response. 5 key Council owned 'earmarked' disaster recovery centres are retrofitted for climate resilience. 							
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 bushland fuel load management works in collaboration with Community Safety and Infrastructure Operations. Where appropriate this work should include seeking 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 pest animal and weed management plan to mitigate the fire risk to invasive species and strengthen ecosystem resilience. Where appropriate this work should include seeking 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	Funds allocated	2023/24	GMCA region grant	Climate Program			



Definition	Minimising	the impacts of climate change on Council's infrastructu	ure and se	rvices				
Goal	Our organi	sation is adapting well to a changing climate.						
Targets	 200 hectares of Council managed land is regenerated, protected and managed to enhance biodiversity values. 50% of Council employees and elected representatives are trained in natural disaster response. 5 key Council owned 'earmarked' disaster recovery centres are retrofitted for climate resilience. 							
Strategic Direction	Ref #	Description of action	Cost	FY	Funding source	Lead		
		key Council infrastructure (subject to grant funding, project led by Goulburn Murray Climate Alliance)			funding successful			
	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		
		Investigate the feasibility to protect large native and exotic trees on private land, in both urban and rural settings (for shade, amenity and habitat values), including community consultation on options.	Staff time	ТВА		Planning and Climate programs		
		Develop a Street Tree Policy to protect and improve urban tree canopy to provide cooler shady towns in a heating climate.	Staff time	2023-4	Allocated staff time (salaries)	Climate programs and tree programs		
	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	Sustainability and 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	ABS2	Explore opportunities to boost National Disaster Fund payments so that damaged assets can be replaced with climate-adapted capacity, rather than like for like	Staff time	Ongoing	Allocated staff time (salaries)	Sustainability and Assets/ Finance		
continuity, essential services and key decision making functions specifically	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	Staff time	2024/25	Victorian Governmen t funds	Development Services/GBC MA		



Definition	Minimising [•]	the impacts of climate change on Council's infrastruct	ure and se	rvices				
Goal	Our organis	sation is adapting well to a changing climate.						
Targets	• 50%	 200 hectares of Council managed land is regenerated, protected and managed to enhance biodiversity values. 50% of Council employees and elected representatives are trained in natural disaster response. 5 key Council owned 'earmarked' disaster recovery centres are retrofitted for climate resilience. 						
Strategic Direction	Ref #	Description of action	Cost	FY	Funding source	Lead		
land use planning and development		is developing this objective in 2022/23 and 2023/24)						
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, include overlays and zoning, with consideration of best available climate projections, in accordance with relevant guidelines	Staff time	2023/4 commen cement	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 (link to Planning Review process)	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		



Definition	Minimising	Minimising the impacts of climate change on Council's infrastructure and services						
Goal	Our organis	Our organisation is adapting well to a changing climate.						
Targets	• 50%	 200 hectares of Council managed land is regenerated, protected and managed to enhance biodiversity values. 50% of Council employees and elected representatives are trained in natural disaster response. 5 key Council owned 'earmarked' disaster recovery centres are retrofitted for climate resilience. 						
Strategic Direction	Ref #	Description of action	Cost	FY	Funding source	Lead		
	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		



Response Area 4: Mobilisation

	Inspiring and scaling up climate action across the municipality and through other levels of government								
	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties Plans								
Target	part • 100 cust	 10% of Murrindindi Shire's community (or around 1,400 individuals, community groups and businesses) take part in Council supported initiatives. 100% of customer-facing staff have received training in effective climate conversations and where to direct customers to more information and resources Murrindindi Shire supports communities and businesses to reach net zero by 2035. 							
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	MOCS4	Implement Council's Reconciliation Action Plan to support climate resilience among the Shire's indigenous community and inspire more sustainable relationships with the environment	Staff time	2023/24 onwards	Funds already allocated	Community wellbeing			
4.2 Engage with stakeholders to build an understanding of how to effectively	MOCC3	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			
take action on climate change across the Shire.	FCE1	Develop a consistent narrative that promotes action on climate change, and identify best methods for ongoing community engagement and education around climate change, such as surveys, Council website, factsheets, and the Loop platform.	~	2023/24 and ongoing	Allocated staff time (salaries)	Climate program			
	MOCC5	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			
	MOCS1	Cooperate with external health and community service providers to educate staff about climate	External funds	2024/5	Allocated staff time	Community wellbeing			



Definition	Inspiring and scaling up climate action across the municipality and through other levels of government							
Goal	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties Plans							
Target	 10% of Murrindindi Shire's community (or around 1,400 individuals, community groups and businesses) take part in Council supported initiatives. 100% of customer-facing staff have received training in effective climate conversations and where to direct customers to more information and resources Murrindindi Shire supports communities and businesses to reach net zero by 2035. 							
Strategic Direction	Ref #	Description of action	Cost estimate	Time	Funding Source	Lead		
		impacts and how to manage them, through support services to engage with vulnerable communities on extreme weather preparedness						
	MOCC1	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		
	MOCC2	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).	\$	2025/26	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	Grant funded to enhance existing programs	Customer experience		
	MODS1	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		



Definition	Inspiring and scaling up climate action across the municipality and through other levels of government							
Goal	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties Plans							
Target	part • 100 cust	 6 of Murrindindi Shire's community (or around 1,400 in a in Council supported initiatives. % of customer-facing staff have received training in eff tomers to more information and resources rindindi Shire supports communities and businesses to 	fective climate conversations and where to direct					
Strategic Direction	Ref #	Description of action	Cost	Time	Funding	Lead		
			estimate		Source			
	MOCS6	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		
	MORE5	Work with peak bodies and local organisations in the agriculture sector and transport sector to understand issues and opportunities and support these sectors appropriately	Staff time	2023/24	Allocated staff time (salaries)	Climate program		
4.3. Help the community build capacity in emergency and	MOTE4	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)	Tourism and events		
natural disaster prevention, response and recovery	MOEM2	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 Staff time	2023 - 2025 2024/5 onwards	Existing pilot program Seek grant funds to extend this program	Emergency Management		
	MOEM1	Advocate for and otherwise support improved communications coverage across the shire during emergencies. Seek partnerships and relationships with Ausnet and Telstra to assist this aim.	Staff time	ongoing	Allocated staff time (salaries)	Emergency services		



Definition	Inspiring and scaling up climate action across the municipality and through other levels of government							
Goal	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties Plans							
Target	 10% of Murrindindi Shire's community (or around 1,400 individuals, community groups and businesses part in Council supported initiatives. 100% of customer-facing staff have received training in effective climate conversations and where to customers to more information and resources Murrindindi Shire supports communities and businesses to reach net zero by 2035. 							
Strategic Direction	Ref #	Description of action	Cost estimate	Time	Funding Source	Lead		
	MOCS3	Encourage and support increased community volunteerism, particularly in SES and CFA	Staff time	ongoing	Allocated staff time (salaries)	Emergency services		
	MOCS5	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		
actions. Many of the advanced in the next	se actions few years	key part of consultation when the community have the opportunity for grants, but staff reso . The indicative cost range shown is for 2-3 ye process, when new initiatives are assessed w	urce will o ars of the	nly allow actions. C	for a limited council fundi	number to be ng will also be		
4.4. Provide direct resourcing, incentives, and support to	MOCC11	Incorporate a climate change stream into Council's existing grant programs for community and business	\$\$	TBA	New initiative (operational budget bid)	Community wellbeing		
households, community groups, businesses, farms and service providers	MOCC14	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	\$\$	ТВА	Capital budget bid and grant funded	Climate program		
for climate mitigation and adaptation activities.	MOCA1	Support community groups who lease Council assets to install renewable energy and boost energy and water efficiency	\$\$	TBA	Allocated staff time (salaries)	Community development		



Definition	Inspiring and scaling up climate action across the municipality and through other levels of government								
Goal	Our organis	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties Plans							
Target	 10% of Murrindindi Shire's community (or around 1,400 individuals, community groups and businesses) take part in Council supported initiatives. 100% of customer-facing staff have received training in effective climate conversations and where to direct customers to more information and resources Murrindindi Shire supports communities and businesses to reach net zero by 2035. 								
Strategic Direction	Ref #	Description of action	Cost estimate	Time	Funding Source	Lead			
Actions in this Strategic Direction are to be	MOTE2	Support investment attraction and economic diversification into new markets (e.g. renewable energy, carbon trading, new tourist markets)	\$\$	ТВА	Grant funding and staff time	Tourism and Events			
prioritised through community engagement process	MOCC17	Investigate options for a free community information service for home sustainability including energy information and advice. Investigate how Council can encourage sustainable home builds and retrofits.	.\$\$	ТВА	Climate program and grant funds	Climate program			
		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	ТВА	Allocated staff time (salaries)	Climate program			
	MORE3	Distribute scientific research on the impacts of climate change on natural environments, the climate solutions nature provides, and how we can support ecosystem health	Staff time	TBA	Allocated staff time (salaries)	Environment			
	MORE2	Expand Council support for community nature restoration efforts. Investigate options for Council support for conservation and restoration on private land.	\$\$	TBA	New initiative (operational budget bid)	Environment			
	MOTE1	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	Climate program			



Definition	Inspiring and	d scaling up climate action across the municipality an	d through oth	ner levels	of government	
Goal	Our organisation empowers community and business led action and aligns with local Registered Aboriginal Parties PI					
Target Strategic Direction	 10% of Murrindindi Shire's community (or around 1,400 individuals, community groups and businesses) take part in Council supported initiatives. 100% of customer-facing staff have received training in effective climate conversations and where to direct customers to more information and resources Murrindindi Shire supports communities and businesses to reach net zero by 2035. 					
	Ref #	Description of action	Cost estimate	Time	Funding Source	Lead
					grant options)	
	MOCC8	Run a leadership or mentorship program to empower the community to lead climate action projects in their networks	\$\$	TBA	Grant funding and staff time	Climate program
	MOCC9	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
	MOCC15	Facilitate the establishment of carbon offset demonstration sites on private or public land	\$\$\$	TBA	New initiative (operational budget bid)	Climate program
	MORE1	Support businesses-to develop Food Organics Garden Organics (FOGO) waste management systems	\$	TBA	Allocated staff time (salaries)	Waste
	FCC2	Establish a Climate Action Roundtable 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	Staff time	ТВА	Allocated staff time (salaries)	Climate program



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 action 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.¹³
- 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)

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 costs¹⁴. 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

¹³ 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.'* ¹⁴ https://enews.nibs.org/t/r-A40041C9475B66082540EF23F30FEDED



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 2022-2025 Action Plan and future Action Plans.

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

Appendix 1: Murrindindi Shire Council community-wide emissions by source, sector and subsector (largest to smallest contribution).

Source	Sector	Subsector	Emissions (tCO2e)
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
Land use			-4,500
Total			360,176



Appendix 2: 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 Assess ment 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. Rating: extreme	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, Al8a, Al8b, Al8c, Al9a, Al9b, Al9c	ABS2, FAM2, AEM4
Assets	Extreme weather including bushfire and storms damage Council assets (excl. transport infrastructure), resulting in financial costs to repair and	AI1, AI2,	MICA1, ABS2,



	reduced ability to provide essential emergency support services Rating: high		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
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>	Al18	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 Rating: high	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, incuring increased costs to manage the impact. Rating: critical (preliminary assessment only)	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. Rating: major (preliminary assessment only)	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	ME2	MICC2, MICA1, MICC4,



	thermal comfort, and increased resilience of buildings to extreme weather events. <i>Rating: opportunity</i>		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
Opportunity	Economic and community wellbeing benefits of a longer tourism season and more time spent outdoors in warmer weather. Rating: opportunity	MCS4	FA1, MOCS5
Opportunity	Health benefits of climate action, such as purchasing local, fresher foods, cycling rather than driving, and reduced air pollution from electric vehicles. <i>Rating: opportunity</i>	MCS2	FA1, MOCS5



Appendix 3: Potential actions to be implemented from 2025 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
MICC5	Mitigation	Climate Program	Develop a carbon offsetting policy that defines the principles and framework for how Council will offset.
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 events and climate change
AGR3	Adaptation	Governance and Risk	Work with suppliers and contractors to implement systems for reporting on emissions metrics
MOCC2	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)
MOCC6	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.
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



Appendix 3: 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."

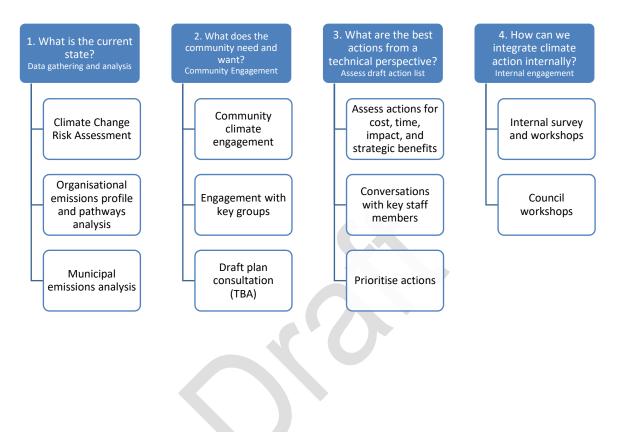
"It is real. Don't make it a talk fest, act and lead by example."

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Appendix 4: 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.



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Appendix 5: Cost Estimates

This plan includes actions that are outside Council's normal scope and will require a separately funded project. This table gives an approximate estimate from 2022. Many technologies are developing, making it difficult to estimate future costs.