



# CLIMATE CHANGE ADAPTATION ACTION PLAN

2022 - 2027



Wodonga Council acknowledges  
Aboriginal and Torres Strait Islander people  
as the First Peoples of the Country.  
We also acknowledge them as Traditional Owners  
and Custodians across various lands.

We pay our respect to their Ancestors, Elders,  
children and young people. We acknowledge the strength  
and resilience of all Aboriginal and Torres Strait  
Islander Peoples and recognise their continuous  
connections to lands, waters and  
communities across the country.

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# INTRODUCTION

Climate change is a global crisis caused by an increase in concentrations of atmospheric greenhouses gases due to human activity. The effects of climate change are being experienced all across Victoria with higher average temperatures, lower average rainfall and more extreme weather events.

These impacts have adverse effects on the social, economic and environmental systems we rely on, where our most vulnerable communities face disproportionately greater risks.

Adapting and mitigating climate risks is essential at the local government level as the expected climatic changes have implications for the community and the continued delivery of local government assets and services into the future.

Wodonga's climate is changing and this action plan demonstrates Wodonga Council's commitment to reducing emissions in line with the state strategy to achieve a net-zero emissions goal. Victoria's *Climate Change Strategy* sets out Victoria's plan for further reducing emissions as well as creating opportunities and jobs. It maps out how Victoria continues to grow while working towards a net-zero emissions goal.

Local government has a legislated responsibility to face increasing climate responsibilities and a duty of care to incorporate climate risk mitigation and adaptation actions into all operations.

This Climate Change Adaptation Action Plan (CCAAP) demonstrates council's actions to achieve this so that we are better prepared for the changing climate. This presents an opportunity to reduce the vulnerability of council's assets and services, while empowering our community to be healthy, connected and resilient.

The council has used an evidence-based approach for the development of the CCAAP by prioritising actions based on climate risks and opportunities specific to our local region.

This action plan reflects a pathway to action for a more sustainable future.

Everyone has a responsibility to take action and together we can make a difference.

## KEY ACHIEVEMENTS OF WODONGA COUNCIL TO DATE TO REDUCE GREENHOUSE GAS EMISSIONS INCLUDE THE FOLLOWING.

- Signing up to the Victorian Energy Collaboration which provides 100 per cent renewable energy for council's facilities
- 18 hybrid light fleet vehicles
- More than 200 solar LED lights installed in parks and reserves
- LED street lighting projects – stage 1 residential and stage 2 major roads
- Sporting field lighting on automated CTS control system which monitors and schedules usage
- 440kW solar PV installed on council facilities.

These actions to date have reduced council's Scope 1 and 2 emissions by more than 30 per cent from 2018-2019 to 2022.

## PURPOSE OF THE PLAN

Wodonga Council recognises the severity of climate change and that adaptation planning is fundamental to mitigating the adverse impacts associated with climate change.

While mitigation actions seek to address the cause of climate change (ie. reducing greenhouse gas emissions), adaptation recognises the climate is changing and aims to address the expected climate change impacts. Climate adaptation complements climate mitigation by increasing resilience and reducing vulnerability so that we are better prepared for a future of increased extremes. This plan demonstrates the actions the council will undertake to adapt and mitigate the impacts of climate change and ways to support community.

Wodonga Council plays a considerable role in addressing climate change but everyone in our community is also able to contribute through actions, large or small. These changes could include riding a bike to work, reducing energy use, joining a Wodonga Urban Landcare Group “Friends of” group, growing fruit and vegetables, reducing waste and shopping sustainably. By collaborating and synergising climate action between council and the community, everyone can more effectively address climate risks for our region.

## REGIONAL AND LOCAL CLIMATE PROJECTIONS

The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report states that the current scale of climate change globally is unprecedented and it is unequivocal that humans are the main drivers of the observed changes in extremes.

The 2020 State of the Climate developed by CSIRO and the Bureau of Meteorology reports that:

- Australia's climate has warmed on average by  $1.44 \pm 0.24$  degrees since 1910;
- In the south-east of Australia, there has been a decline of about 12 per cent in April to October rainfall since the late 1990s;
- There has been a decrease in streamflow at the majority of streamflow gauges across southern Australia since 1975;
- There has been an increase in extreme fire weather, and in the length of the fire season, since the 1950s with a decrease in the number of tropical cyclones since 1982;
- Oceans around Australia are acidifying and have warmed by about one degree since 1910; and,
- Sea levels are rising around Australia, including more frequent extremes.

The summer of 2021-2022 saw Wodonga with three intense weather systems which caused extensive damage to infrastructure and vegetation in parks and reserves. Consideration needs to be taken to plan for the increase in intensity and frequency of extreme weather events.

Evidence has shown that human-induced climate change will continue far into the future.

The Ovens Murray Climate Projections 2019 is a regional snapshot from the Victorian Climate Projections 2019 developed by CSIRO and DELWP which projects the future climate for the Ovens Murray Region. These projections complement previous climate projections, including the Climate Change in Australia Projections which the previous CCAAP was based on. The results are shown in Table 1 for two plausible scenarios of future greenhouse gas emissions - medium emissions (RCP4.5) and high emissions (RCP8.5).

The Ovens Murray Climate Projections 2019 projects that:

- Maximum and minimum daily temperatures will continue to increase over this century (very high confidence);
- By the 2030s, increases in daily maximum temperature of one to 1.9 degrees (since the 1990s) are expected;
- Rainfall will continue to be very variable over time but over the long term it is expected to continue to decline in winter and spring (medium to high confidence), and autumn (low to medium confidence), but with some chance of little change;
- Extreme rainfall events are expected to become more intense on average through the century (high confidence) but remain very variable in space and time; and,
- By the 2050s, the climate of Wodonga could be more like the current climate of Forbes, NSW.

The Intergovernmental Panel on Climate Change (IPCC) bases its climate modelling and research on a greenhouse gas (GHG) concentration trajectory, or a **Representative Concentration Pathway (RCP)**, in which **RCP 4.5** is described as an intermediate scenario in which the GHG concentration will start to decline after 2040 and **RCP 8.5** as a scenario in which the GHG will continue to rise throughout the 21st century.

Table 1 provides a summary of the modelled averages at different gas emission scenarios for the Ovens Murray region.

Predicted Changes in Annual Temperature and Rainfall with Rising in GHG Emissions						
Climate Change Indicators	If GHG concentrations was to peak by 2040 [RCP 4.5]			If GHG concentration was to continue rising through the 21st Century [RCP 8.5]		
	2020 - 2039	2040 - 2059	2060 - 2099	2020 - 2039	2040 - 2059	2060 - 2099
Increase in Max Temperature (°C)	1.1 (°C) (1.0 to 1.6)	1.9 (°C) (1.2 to 2.3)	2.7 (°C) (2.3 to 4.3)	1.4 (°C) (1.2 to 1.9)	2.4 (°C) (1.7 to 3.1)	4.9 (°C) (3.2 to 6.5)
Increase in Min Temperature (°C)	0.8 (°C) (0.6 to 0.9)	1.3 (°C) (0.9 to 1.7)	1.9 (°C) (1.4 to 2.7)	0.9 (°C) (0.8 to 1.1)	1.6 (°C) (1.4 to 2.2)	3.5 (°C) (2.8 to 4.3)
Decrease in Av Rainfall (%)	-6 (%) (-12 to -4)	-6 (%) (-20 to -1)	-11 (%) (-30 to -3)	-11 (%) (-18 to -3)	-14 (%) (-21 to -4)	-25 (%) (-33 to 6)

Notes:

1. Based on Bureau of Meteorology monthly station data from Albury Airport (1986–2005).

In short, this information for Wodonga's future climate can be summarised as:

- Normal days will be hotter than now, especially during summer months;
- Average number of days per year over 35 degrees will increase;
- Less rain may fall in spring and winter, with more summer storms; and,
- Less rainfall means a drier climate adding to more frequent hotter (extreme) days.

## EXTREME WEATHER IN WODONGA

Examples of extreme weather impacts and risks.



Clockwise from above: Storms January 2022, David Winterbottom Park, Clyde Cameron Reserve, David Winterbottom Park and Veronica Egan Park.

Below: Frost, July 2018, Fire on Bears Hill.



## STRATEGIC CONTEXT

### AUSTRALIAN GOVERNMENT

The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) which seeks to avoid a global temperature increase of more than 2 degrees above pre-industrial levels and ideally keep them below 1.5 degrees. Under the Paris Agreement, countries must set climate change targets. Australia has recently set a net zero emissions by 2050 target in addition to the existing target to achieve between 26 and 28 per cent emissions reduction on 2005 levels by 2030. This target is ranked in line with a less than three-degree temperature increase.<sup>2</sup>

2. Climate Action Tracker. 2020 [climateactiontracker.org/countries/australia/](https://climateactiontracker.org/countries/australia/)

Indications to date show Australia is not on track to meet the Paris Agreement targets. The Australian Government is rolling out its Technology Investment Roadmap which is a strategy to accelerate development and commercialisation of low emissions technologies.

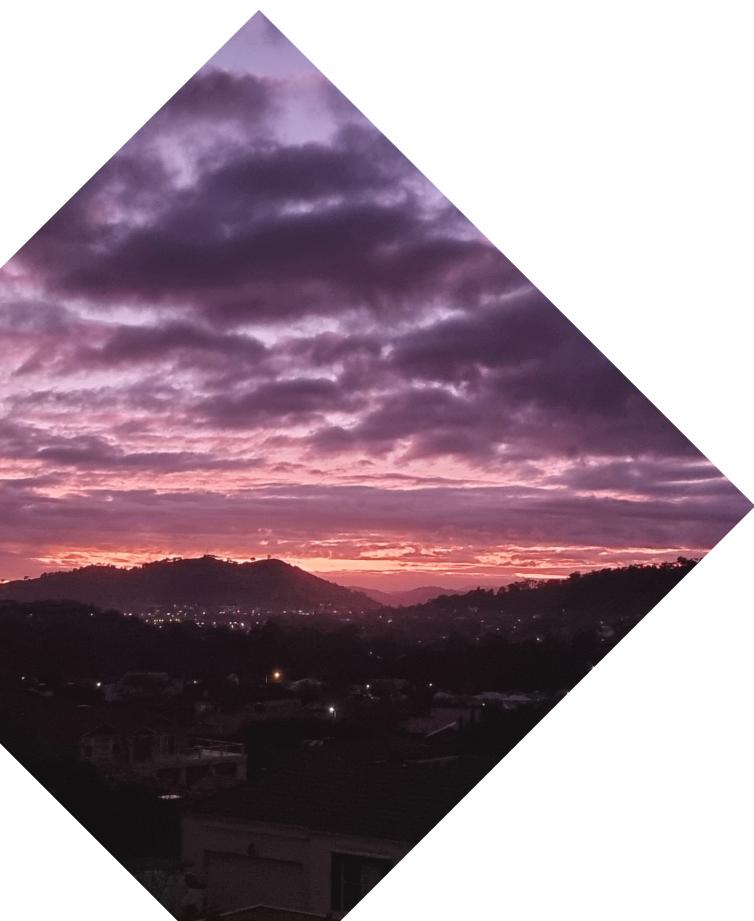
### VICTORIAN GOVERNMENT

Victoria's *Climate Change Act 2017* (the Act) provides Victoria with a legislative foundation to manage climate change risks, maximise the opportunities that arise from decisive action and drive Victoria's transition to a net zero emissions, climate resilient community and economy. The Act sets out a clear policy framework and a pathway to 2050 that is consistent with the Paris Agreement.

The Act requires a *Climate Change Strategy* every five years to set out how Victoria will meet its emissions reduction targets, adapt to the impacts of climate change and transition to a net zero emissions future. Victoria's *Climate Change Strategy 2021-2025* has set interim targets to reduce the state's emissions from 2005 levels by 28 to 33 per cent for 2025 and 45 to 50 per cent for 2030. The strategy has also prepared emissions reduction pledges for each of the seven sectors: energy, transport, agriculture, waste, industrial, land use and whole-of-government. Victoria's path to a net-zero emissions and climate resilient future is mapped out on the Department of Environment, Land, Water and Planning website.

In addition, the Act introduces system-based planning for adaptation, focusing on key systems that are either vulnerable to the inevitable impacts of climate change, or are essential to ensure Victoria is prepared. The Act requires the Victorian Government to develop adaptation action plans for seven key systems: Primary Production, Built Environment, Education and Training, Health and Human Services, Transport, Natural Environment, and the Water Cycle.

Each plan sets out the challenges of climate change for each system, the extensive work already under way and the key priorities for the next five years. Subsequent plans will be prepared every five years on a path to a climate-resilient Victoria in 2050.



## HUME REGION

The *Hume Regional Climate Change Adaptation Strategy* was released in December 2021 and identified needs, priorities and locally led actions over the next five years.

The process was informed by the latest climate change science and community engagement. It is structured under these themes.

- Theme 1: Preparing for and recovering from emergencies
- Theme 2: Caring for our natural environment
- Theme 3: Embracing renewable energy
- Theme 4: Improving health and wellbeing
- Theme 5: Enhancing neighbourhoods and the built environment
- Theme 6: Strengthening the economy and workforce

## LOCAL GOVERNMENT

Several powers and responsibilities given to local governments are key legislation.

Victoria's *Climate Change Act 2017* stipulates that decision-makers (eg. councils) must have regard to climate change.

Subsection 17(2) states:

In considering climate change, the relevant decision-maker must have regard to:

- a. the potential impacts of climate change relevant to the decision or action; and
- b. the potential contribution to the State's greenhouse gas emissions of the decision or action; and
- c. any guidelines issued by the Minister under section 18.

Subsection 17(3) states:

In having regard to the potential impacts of climate change, relevant considerations are:

- a. potential biophysical impacts; and
- b. potential long and short term economic, environmental, health and other social impacts; and
- c. potential beneficial and detrimental impacts; and
- d. potential direct and indirect impacts; and
- e. potential cumulative impacts.

The Act also states that local governments must consider climate change when preparing their municipal public health and wellbeing plan.

The *Local Government Act 2020 (Vic)* identifies several overarching governance principles which create obligations for councils in the context of climate change, including the following.

- Under 9(2) (b) Councils are required to give priority to achieving the best outcomes for the municipal community, including future generations.
- Under 9(2) (c) Councils are required to promote the economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks.
- Under 9(2) (h) regional, state, and national plans and policies are to be taken into account during Council's strategic planning.
- Under 9(2) (i) Council must ensure its decisions, actions, and information are transparent.

As a public sector organisation, Wodonga Council is bound by the *Public Administration Act 2004 (Vic)* which highlights that public authority directors have duties of care and diligence to consider climate risk in their activities.

# BACKGROUND

## CLIMATE CHANGE ADAPTATION ACTION PLAN 2017-2021

This action plan was developed in conjunction with Indigo and Towong councils. While many actions have been successfully undertaken and completed, the opportunity exists for improvements and further gains to be made.

The CCAAP 2017-2021 was developed to assist council operations to:

- Embed the climate change lens over all operational and strategic policy and decision-making;
- Increase the resilience of council's infrastructure and service delivery by building internal capacity to absorb, adapt and adjust to the expected impacts of climate change; and,
- Promote co-operative partnerships with neighbouring councils to facilitate adaptation.

There have been significant achievements over the life of the CCAAP 2017-2021, the most significant of these being the recent migration of council's power supply to 100 per cent renewable electricity. Key capital works through the installation of solar photovoltaic panels and replacement of mercury vapour streetlights with energy-efficient LED fittings in 2017 and 2022 has also seen substantial overall reduction in energy costs to most of council's facilities.

The CCAAP is supported by Wodonga Council's Climate Change Policy 2021.

## EMBEDDING CLIMATE RESILIENCE INTO LOCAL GOVERNMENT

Through Victoria's *Climate Change Act 2017* and the *Local Government Act 2020*, local government has a legislated responsibility to demonstrate action on addressing climate change.

Local governments are often the first to respond to climate change impacts and through our close links with community, are able to develop localised CCAAPs in conjunction with community to drive change. This CCAAP has been developed with community feedback and is aimed to be implemented in partnership.

It is important to note that all documents pertaining to council operations need to keep climate change adaptation and mitigation in consideration.

Embedding climate change considerations in all operational strategies and plans will ensure strong and responsible leadership, increase the adaptive capacity of the organisation and build healthier and more resilient communities.

Ensuring all council operations are undertaken with a climate change risk lens can be achieved by:

- Facilitating greater engagement and action with staff on climate change;
- Ensuring climate change is embedded in all council documents with specific actions;
- Continuing to actively participate in Goulburn Murray Climate Alliance projects to mitigate and adapt to climate change through a collaborative approach;
- Continuing with system-based planning focusing on all directorates, ensuring a targeted response to climate change;
- Ensuring all planned activities risk assessment includes climate change risk as part of the risk register review; and
- Implementing actions undertaken for the CCAAP.

## CLIMATE RISK AND ADAPTATION

Identifying climate risks and adaptation actions helps organisations and communities to take informed action to respond to climate change. This plan outlines what actions Wodonga Council will make and opportunities for community to support adaptation efforts. Actions are measurable and will be reported to the council and the community annually.



# CLIMATE CHANGE RISKS AND OPPORTUNITIES

## IDENTIFYING CLIMATE RISKS AND OPPORTUNITIES

The Australian Standard AS 5334-2013: *Climate Change adaptation for settlements and infrastructure – A risk based approach* provides a framework for the identification and management and ongoing monitoring of climate risk. This framework approach was used in the CCAAP 2017–2021 and has been used for this version.

The objectives of the standard are to:

- a. Provide principles and generic guidelines on the identification and management of risks that settlements and infrastructure face from climate change; and,
- b. Describe a systemic approach to planning the adaption of settlement and infrastructure based on the risk management process.

The scope of this standard is limited to settlements and infrastructure and is not intended for use in other areas, such as public health.

The Financial Stability Board created the Task Force on Climate-related Financial Disclosures (TCFD) to improve and increase reporting of climate-related financial information. The (TCFD) is generally regarded as the best practice for assessment and disclosure of climate related risks and opportunities. The TCFD has been used to demonstrate how Wodonga Council can meet its obligations in relation to assessing and managing climate change-related risks and opportunities. The TCFD classifies the risks and opportunities into two main categories: physical and transitional.

The review undertaken by Ndevr Environmental on the previous CCAAP identified 17 strategic risk and opportunities across the organisation that are still relevant. Following a gap analysis conducted based on the updated climate scenario, regional vulnerabilities and best practice research in line with AS 5334-2013 and TCFD framework, an additional 11 risks and opportunities were identified.

The 28 risks and opportunities identified fall under three key themes: *Our People, Our City and Our Future* (Appendix 1). Each risk and opportunity have been given a rating (low, medium, high, significant or extreme) based on their likelihood and consequence at three time points (2030, 2040 and 2090). The ratings are based on Wodonga's future climate scenario, existing vulnerabilities and consultation with the community and council staff. Only risks and opportunities rated as extreme, high and significant have been included for consideration.

## COMMUNITY SURVEY

A survey was developed that sought input and feedback from the community regarding their concerns about climate change, key priorities and desire for council action. The survey findings were then used to inform the development of the CCAAP. The community survey received a total of 145 responses of which 138 were representatives of the community (either a resident, staff or both).

Across all age groups, 75 per cent of respondents find climate action to be important to very important. The community was asked to identify climate-related risks they were most concerned about and opportunities that were most important to them.

Risks perceived by the community to be most concerning were:

- Health, wellbeing and safety impacts from climate hazards;
- Impacts of nature (ie. vegetation and animals) and consequences (eg. increased zoonotic diseases, which are transferred from animals to people);
- Reduced water supply and quality; and
- Reduced affordability of energy, fuel and insurance.

Opportunities perceived by the community as important were:

- Diversify the economy with carbon-related initiatives (eg. renewable energy, carbon farming);
- Reduced bills due to increased access to efficient buildings and equipment and clean technology;
- Opportunity to engage and draw upon knowledge and leadership capacity of Traditional Owners, women and youth; and.
- Increased grants and funding for climate action.

## STAFF AND COUNCILLOR CONSULTATION

Workshop sessions were held with staff to gain greater insight into operational activities and capabilities. Councillors were also supplied with the CCAAP 2022-2027 Final Report and attended a strategic session to provide feedback regarding the action plan's alignment with council's strategic objectives and local priorities. These workshops and feedback opportunities have formed the basis of the action plan.

## TRANSFORMATIONAL APPROACH

The transformational approach employs change management practices to tackle deeply engrained behaviours and bring about lasting and meaningful change. Planning this approach to implement a change management strategy needs to be implemented across both the organisation and community to ensure that climate adaptation is integrated in all existing systems. Using this approach will allow for council to fully integrate sustainability and climate change action into the wider agenda of the organisation and community rather than introduce it as a stand-alone initiative.

## ADAPTIVE PLANNING

### GUIDING PRINCIPLES FOR ADAPTIVE ACTION

Developing guiding principles for adaptive action ensures climate change is incorporated into the planning and implementation of management decisions. Adaptive principles ensure that management choices don't increase or hasten the impacts of climate change. Climate risk cannot be reduced to zero therefore management decisions need to ensure the necessary controls are put in place for minimising the impact.

### THE ADAPTATION ACTIONS

The identified actions are structured based on council's strategic priorities as described in the *Council Plan*. Our council plan outlines five key priority areas to improve outcomes for our community. This provides a framework to deliver on our strategic direction and drive objectives and strategies which define what council will work to achieve. These actions have been identified by reviewing existing actions, gaps and external influences and prioritised through a qualitative multi-criteria analysis.

These five key priority areas are:



STRONG, RESPONSIBLE AND SOUND LEADERSHIP



SUSTAINABLE AND FORWARD-LOOKING



HEALTHY, SAFE AND RESILIENT COMMUNITY



CONNECTED AND ENGAGED COMMUNITY



THRIVING AND VIBRANT COMMUNITY

Each action has been aligned to relevant climate-related risks and opportunities, assigned responsibility to a relevant directorate and KPIs for monitoring progress. In addition, timing intervals are provided for implementation based on their prioritisation rating.

- High scores are prioritised to occur within two years
- Medium scores are prioritised to occur between three and seven years
- Low scores are prioritised to be implemented after seven years

Timing intervals have been made to be consistent with the previous CCAAP.

### RESOURCING

Council actions are significantly influenced by legislative obligations as well as restricted by resourcing and budget considerations. Actions will require budget allocation through the budget process annually.

# ADAPTATION ACTIONS

TABLE A



STRONG, RESPONSIBLE AND SOUND LEADERSHIP

NO.	ACTION	RISK ALIGNMENT	KPI	PRIORITY	TIMING	RESPONSIBILITY
1	Ongoing emissions reporting	25	Continued emissions software subscription Annual reporting	High	Within 2 years	Sustainability
2	Become members of Cities Power Partnership	25	Report membership and progress	High	Within 2 years	Sustainability
3	Set net zero emissions target	25	Public commitment	High	Within 2 years	Sustainability
4	Sustainability Co-ordinator to stay abreast of external programs to promote and help fund opportunities for actions	15, 27, 28	Number of applications	High	Within 2 years	Sustainability
5	Ongoing review and revision of emergency management/response planning	8, 26	Completion of revised strategies	High	Within 2 years	Emergency Response
6	Develop a monitoring system that links climate data with climate risk occurrence	8, 25	Implementation and reporting of system	High	Within 2 years	Risk
7	Continue health and wellbeing (including climate related) in employee induction	18	Portion of employees who have completed the training or revision	High	Within 2 years	People and Workplace
8	Continue to review and revise Council business continuity planning	16-17	Completion of revised strategy	High	Within 2 years	Risk

TABLE B



## SUSTAINABLE AND FORWARD THINKING

NO.	ACTION	RISK ALIGNMENT	KPI	PRIORITY	TIMING	RESPONSIBILITY
1	Work with NECMA and CFA to identify a measurable trigger point to review the adequacy of planning scheme mapping (ie. when temperatures rise by 1 degree a flood study will be undertaken)	1, 22	Threshold implemented in review policy Review undertaken	High	Within 2 years	Planning and Building
2	Revise AMPs, create awareness through Asset Management Steering Group and sub-committees and incorporate climate risk rating in asset registers or AMS	7, 19, 24	Revision to management plan Number of assessments Number of projects completed	High	Within 2 years	Strategic Asset Management
3	Incorporate an ESD policy into council's planning scheme	5, 19	CASBE membership Completion and publication of policy	High	Within 2 years	Planning
4	Develop an internal ESD policy for council assets	7, 19, 24	Completion of policy Portion of new builds and renewals complying with policy	High	Within 2 years	Infrastructure and Projects
5	Integrate improved transport choices into planning and precinct design	1, 5, 24	Completion of transport strategy	Medium	3-7 years	Planning and Building
6	Advocate for recycled water infrastructure	9, 12, 13	New developments	Medium	3-7 years	Planning and Building
7	Continue to work with NE Water on understanding council supply planning and demand management	12, 13	Provision of data from NE Water	Medium	3-7 years	Planning Infrastructure and Projects Outdoor Operations Building Maintenance
8	Incorporate blue-green infrastructure and water sensitive urban design into planning and new builds or renewals of assets	6, 12, 13	Number of projects	Medium	3-7 years	Planning & Building Infrastructure and Projects Outdoor Operations
9	Implement long-term water usage and systems (integrating water smart concepts and actions eg. Leneva Whole of Water Cycle Management Plan)	9	Number of water smart options	Medium	3-7 years	Planning & Building Infrastructure and Projects Outdoor Operations

**TABLE B****SUSTAINABLE AND FORWARD THINKING**

NO.	ACTION	RISK ALIGNMENT	KPI	PRIORITY	TIMING	RESPONSIBILITY
10	Continue to implement, review and revise the Storm water drainage Asset Management Plan with consideration of climate change impacts and sustainability measures	1, 7, 8	Completion of revision	Medium	3-7 years	Strategic Asset Management
11	Implement smart water digital tools	9	Development/subscription Incorporated into asset management	Medium	3-7 years	ICT and Digital Transformation
12	Biodiversity and conservation management	10, 12-13, 20	Number of surveys Number of projects	High	Within 2 years	Outdoor Operations
13	Integrate trees as part of the planning and construction works relocation/offsetting	1, 6	Number of compliance projects	High	Within 2 years	Planning and Building Outdoor Operations
14	Continue to monitor and review the maintenance standards of natural resources	10, 12-13	Completion of revision of standards	High	Within 2 years	Outdoor Operations
15	Promote a circular economy	23	Revise procurement policy with preference for reduced use of virgin materials	Medium	3-7 years	Economic Development Procurement
16	Facilitate a glass recycling program	14	Tonnes of glass collected	Medium	3-7 years	Waste Management
17	Deliver waste behaviour change programs eg. Halve Waste and Reduce Plastic Use Programs	14	Number of participants/ receipt of Sustainability Victoria funding	High	Within 2 years	Waste Management
18	Develop composting program to divert green and food organic waste from landfill	14	Reduced percentage of green and organic waste in landfills	Medium	3-7 years	Waste Management
19	Develop container deposit scheme and soft plastic recycling for the region	14	Tonnes of plastic collected	Medium	3-7 years	Waste Management
20	Continue review and planning for options for handling of waste after extreme events	14	Incorporate waste management in emergency response strategy	Medium	3-7 years	Waste Management

TABLE C



## HEALTHY, SAFE AND RESILIENT COMMUNITY

NO.	ACTION	RISK ALIGNMENT	KPI	PRIORITY	TIMING	RESPONSIBILITY
1	Implement environmental reserve closures on total fire ban and extreme fire risk days.	1, 3	Average portion of relevant reserves closed on applicable days	High	Within 2 years	Outdoor Operations
2	Enforce septic standards and maintenance and identify existing systems in flood plains	1, 7-8	Portion meeting compliance	Medium	3-7 years	Environmental Health
3	Continuity planning for sport and recreational activities and public events.	3, 11, 12	Revisions of Sports & Rec Strategy	Medium	3-7 years	Sport and Recreation
4	Upgrade Exhibition Centre to enable some large events to be held indoors	2-3	Completion of project	Medium	3-7 years	Sport and Recreation
5	Drive awareness and preparedness of climate-related health	4, 8	Platforms used to distribute information Number of persons reached	High	Within 2 years	Community Planning and Wellbeing
6	Increase number of shading infrastructure installed and water sources	1, 8	Number of trees planted Water facilities in public spaces	Medium	3-7 years	Outdoor Operations Sport and Recreation
7	Continue to improve cycle and footpath network	1, 5	Number of new developments or upgrades	Medium	3-7 years	Infrastructure and Projects Strategic Asset Management Planning and Building
8	Education on sustainable operation of community facilities and events	4, 19, 24	Sustainable outcomes of events (e.g., plastic free) Number of community groups to receive education	High	Within 2 years	Community Planning and Wellbeing
9	Promote use of open and public spaces and recreational infrastructure	3, 5	Platforms used Number of persons reached	Medium	3-7 years	Communications and Marketing
10	Produce a vulnerability map	8	Incorporate in revision of emergency management strategy	Medium	3-7 years	Emergency Response
11	Lobby for a heat alert system	8	Success of lobbying	High	Within 2 years	Emergency Response
12	Support community to incorporate microgrids	2, 19, 23, 24	Microgrid installed	Medium	3-7 years	Sustainability Economic Developmen

**TABLE D****CONNECTED AND ENGAGED COMMUNITY**

NO.	ACTION	RISK ALIGNMENT	KPI	PRIORITY	TIMING	RESPONSIBILITY
1	Resilience of transmission infrastructure	11	Success of advocacy	Medium	3-7 years	Sustainability
2	Provide education support to local community groups	11	Number of projects supported	Medium	3-7 years	Sustainability
3	Develop more programs that target the engagement of disadvantaged populations	11, 26	Number of events Number of attendees	Medium	3-7 years	Tourism and Cultural Services Community Planning and Wellbeing
4	Implement awareness campaigns that promote the use of community and cultural spaces, providing information on their use and benefits	11	Platforms used Number of attendees	Medium	3-7 years	Community Planning and Wellbeing

**TABLE E****THRIVING AND VIBRANT COMMUNITY**

NO.	ACTION	RISK ALIGNMENT	KPI	PRIORITY	TIMING	RESPONSIBILITY
1	Continue destination branding initiatives	10	Number of EV chargers Number of visitors participating in 'Outdoor, Nature, Sports' Visitors to the region's natural resources	Medium	3-7 years	Tourism and Cultural Services Communications and Marketing
2	Wodonga to act as a 'conduit of information' to businesses	18, 21	Number of requests for assistance/information	Medium	3-7 years	Economic Development
3	Explore opportunities to participate in the Emissions Reduction Fund (ERF)	23, 25	Feasibility complete	Medium	3-7 years	Sustainability
4	Implement the Environmental Upgrade Finance program	19, 24	Number of agreements taken up	Medium	3-7 years	Economic Development
5	Support local hydrogen project	23	Marketing platforms used to distribute information	Medium	3-7 years	Communications and Marketing

## COMMUNITY ACTIONS TO REDUCE EMISSIONS



### RESIDENT ACTION IN WODONGA

Installation of solar panels.



### COUNCIL AND COMMUNITY ACTION IN WODONGA

Wodonga Urban Landcare Network  
- Friends of groups volunteering.

Park infrastructure and solar light.



## NEXT STEPS

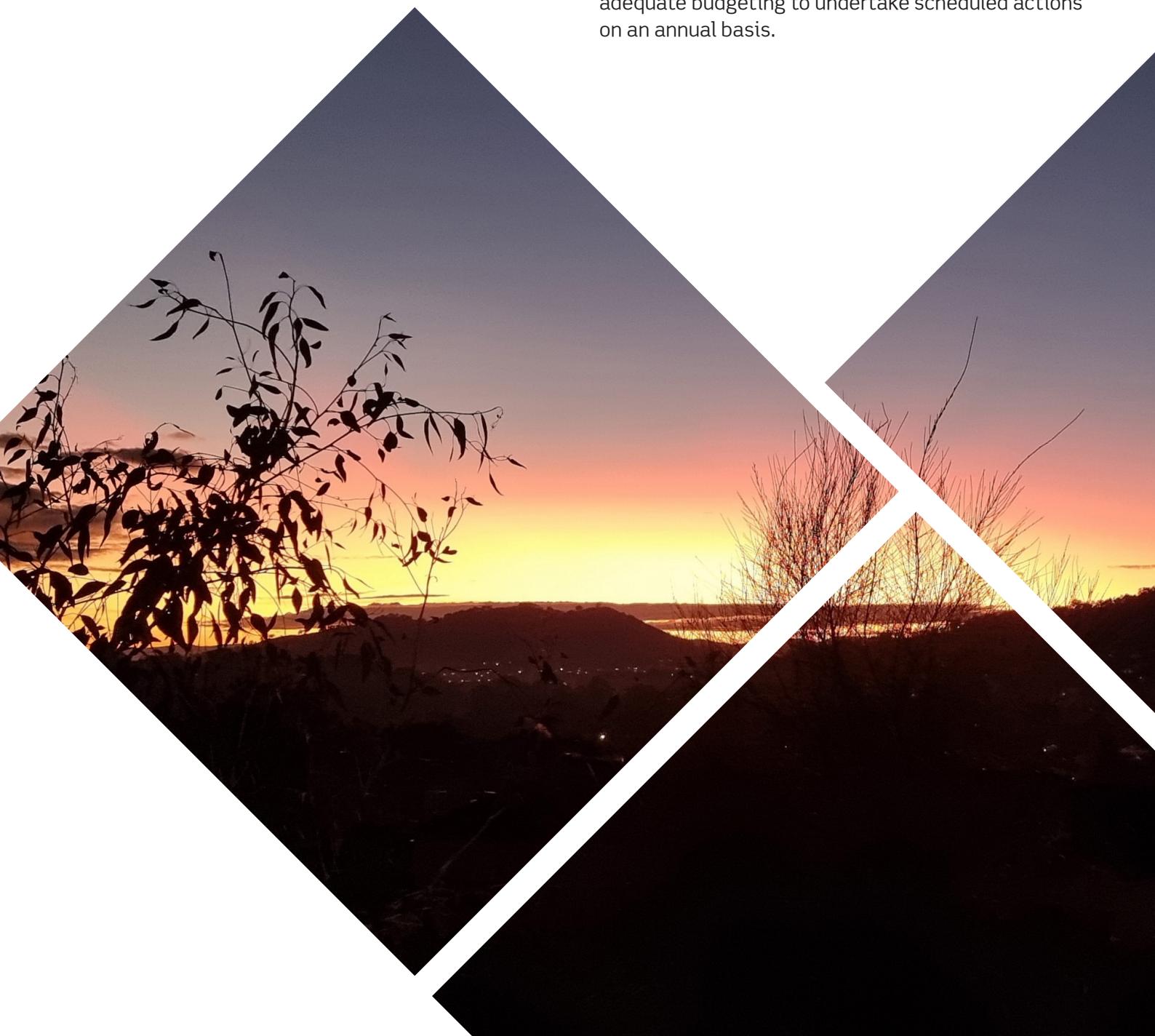
### IMPLEMENTATION OF ACTION PLAN

The actions will be undertaken in the action plan according to the scheduling. The timing intervals have been developed in line with the previous CCAAP 2017-2021.

### MONITORING, EVALUATION AND REPORTING

Regular monitoring, evaluation, review and continuous improvement where possible will apply to this action plan. This process will include annual reporting to the council and community.

Due to the rapidly changing science this document will be reviewed regularly as part of the reporting process. Part of this process will also ensure there is adequate budgeting to undertake scheduled actions on an annual basis.



# APPENDIX 1

## SUMMARY OF CLIMATE RELATED RISKS AND OPPORTUNITIES FOR COUNCIL

KEY AREA	NO.	STRATEGIC RISK/OPPORTUNITY	RISK TYPE	RISK RATING 2030	RISK RATING 2040	RISK RATING 2090
OUR PEOPLE	1	Increasing frequency and intensity of extreme weather events reduces the safety and accessibility of residential environments.	Physical Risk	High	High	Extreme
	2	Increasing frequency and intensity of extreme weather events disrupts the use of community facilities and recreational spaces while being used for emergency management response or as refuges.	Physical Risk	High	High	High
	3	Extreme weather conditions reduce or prevent the use of recreational facilities.	Physical Risk	Significant	High	High
	4	Increasing temperatures creates an opportunity to educate consumers and developers about the benefits of energy efficient building design.	Transitional Opportunity	High	High	High
	5	Increasing climatic extremes (including heatwave) lead to reduced levels of health and activity in the community.	Physical Risk	High	Extreme	Extreme
OUR CITY	6	Increasing frequency and intensity of extreme weather events increases demand for environmentally responsive design of urban and public spaces.	Physical Risk	High	High	Extreme
	7	Increasing frequency and intensity of damaging events compromise the quality of the built environment, disrupting long term asset management (including maintenance/repair costs).	Physical Risk	Significant	High	Extreme
	8	Extreme weather conditions increase the potential for conflict between community safety, environmental and development objectives.	Physical Risk	High	High	Extreme
	9	Increased drought/dry conditions increases pressure on water supplies for residential and business.	Physical Risk	High	High	Extreme
	10	Increasing frequency and intensity of climatic extremes lead to a decline in tourism development and visitation.	Transitional Risk	Significant	High	High
	11	Extreme weather conditions lead to reduced levels of connectivity and social inclusiveness in the community (ie. disruption of essential services including telecommunications, power, roads).	Physical Risk	High	High	Extreme
	12	Increasing frequency and intensity of drought, heatwave, flood, fire and changes to average temperature and rainfall lead to natural assets such as parks, gardens, open spaces and natural reserves not being maintained and enhanced to desired standards.	Physical Risk	High	High	Extreme

KEY AREA	NO.	STRATEGIC RISK/OPPORTUNITY	RISK TYPE	RISK RATING 2030	RISK RATING 2040	RISK RATING 2090
OUR FUTURE	13	Increasing frequency and intensity of extreme weather events reduces the sustainability of natural resources.	Physical Risk	High	High	Extreme
	14	Increasing frequency of intense weather events increases the volume of waste requiring disposal.	Physical Risk	Significant	High	High
	15	Increasing frequency and intensity of extreme weather events and increasing average temperatures reduces the financial sustainability of Wodonga Council.	Transitional and Physical Risk	High	High	High
	16	Increasing frequency and intensity of extreme weather events reduces the efficiency of conducting the business of Wodonga Council.	Physical Risk	High	Extreme	Extreme
	17	Strain on council resources to respond to increasing frequency, scale and complexity of emergencies leads to service disruptions and reduced community satisfaction.	Physical Risk	High	High	Extreme

## ADDITIONAL CLIMATE-RELATED RISKS AND OPPORTUNITIES FOR WODONGA

KEY AREA	NO.	STRATEGIC RISK/OPPORTUNITY	REASON	RISK TYPE	RISK RATING 2030	RISK RATING 2040	RISK RATING 2090
OUR PEOPLE	18	Increasing frequency and intensity of climate hazards reduces job security and job safety particularly for those occupations reliant on weather (e.g., farming, trades)	Labourers and trade workers make up the most common occupations which can be most affected by a changing climate. Healthcare and social assistance may be under resourced as more people require help.	Physical Risk	High	High	Extreme
	19	Increasing temperatures reduces indoor thermal comfort, including affordability of cooling.	Temperatures are expected to increase in Wodonga which will require residents and businesses to cool buildings. Increased use of cooling systems will increase energy bills which will be further exacerbated by rising energy prices.	Physical and Transitional Risk	Significant	High	High
	20	Increasing frequency and intensity of climate hazards and competing priorities leads to reduced biodiversity and subsequent increases to zoonotic and vector-borne diseases.	This is in addition to items 12 and 13 above. Ongoing urbanisation and biodiversity loss drives animals closer to civilisation. Further zoonotic and vector-borne diseases may thrive under a changing climate.	Physical Risk	High	High	Extreme

KEY AREA	NO.	STRATEGIC RISK/OPPORTUNITY	REASON	RISK TYPE	RISK RATING 2030	RISK RATING 2040	RISK RATING 2090
OUR CITY	21	Increased damage and deterioration of assets leads to increased jobs for maintenance and capital works from built environment physical risks.	This is in addition to item 7. An opportunity arises from the likely physical risks of deterioration and damage to built assets -the need to make necessary repairs.	Transitional Opportunity	Significant	High	High
	22	Increased insurance costs or re-pricing of assets in areas with more prevalent extreme climatic events (eg. fire, flood).	Wodonga Council has a history of flooding particularly near the Murray River floodplain. Current insurance policies make it difficult for assets to be affordably covered if they fall in a high-risk zone.	Transitional Risk	Significant	High	Extreme
	23	Opportunities to diversify economy with carbon-related initiatives (eg, renewable energy, sequestration, clean technology).	One of the largest economic sectors in the region is manufacturing. There Is an opportunity to introduce clean technology into manufacturing processes.	Transitional Opportunity	High	High	High
	24	Move to more efficient buildings or transport can reduce operating costs and reduce exposure to future fossil fuel price increases. Operational savings can be used for funding further improvement (ie. revolving energy fund).	As the world transitions to a low carbon economy in response to climate change, council (and the community) can realise cost savings.	Transitional Opportunity	High	Extreme	Extreme
	25	Increased emissions reporting requirements and climate risk liability for local governments.	Local governments are facing increasing climate responsibilities and duty of care to consider climate risk under various policies and legislation. For example, <i>Climate Change Act 2017 (Vic)</i> , <i>Local Government Act2020 (Vic)</i> , <i>Public Administration Act 2004 (Vic)</i> .	Transitional Risk	Significant	High	Extreme

KEY AREA	NO.	STRATEGIC RISK/ OPPORTUNITY	REASON	RISK TYPE	RISK RATING 2030	RISK RATING 2040	RISK RATING 2090
OUR FUTURE	26	Opportunity to draw on knowledge and leadership capacity of Traditional Owners, youth and women.	Traditional Owners are identified as having sound knowledge and healing Country skills and women have been linked to having greater local knowledge of, and leadership in, leading sustainable practices at the household and community levels.	Transitional Opportunity	High	High	High
	27	Federal/state policy not suited to regional areas (ie. council is unable to meet requirements and/or high associated costs).	The Victorian Government has identified a need for regional strategies and plans and associated funding (eg. Hume Regional Plan). However, some broader policies and requirements may not be achievable for regional areas without additional support if adequate infrastructure is not already in place (eg. waste reduction requirements from Victoria's Recycle First Policy).	Transitional Risk	Significant	High	High
	28	External grants and funding as direct financial support for climate adaptation.	There has been an increase to funding opportunities at both federal and state levels for climate action. For example, Sustainability Victoria has provided specific funding for local governments.	Transitional Opportunity	High	High	High





