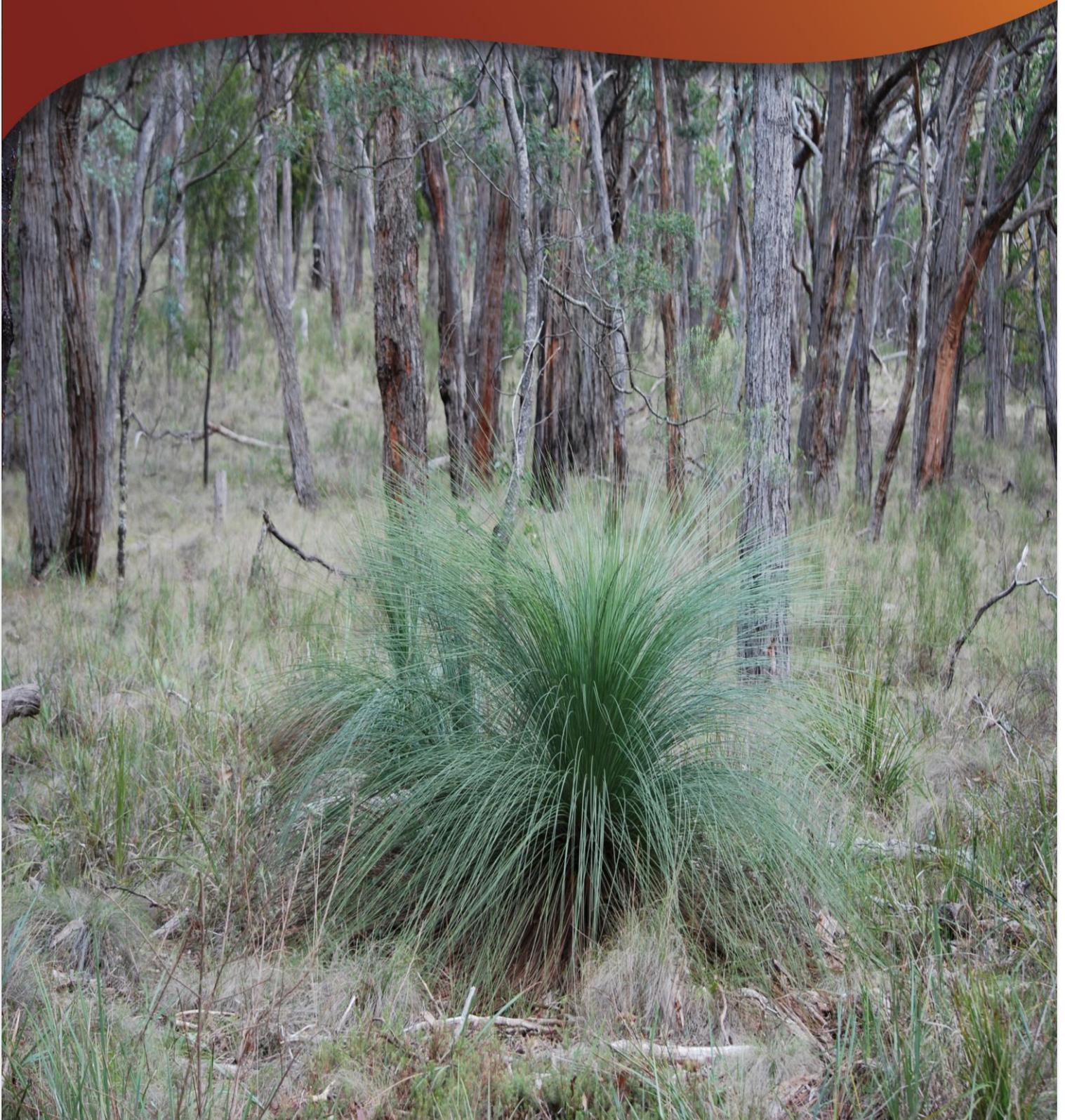




**Macedon
Ranges**
Shire Council

Draft Environment Strategy Refreshed 2021



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Acknowledgement of Country

Macedon Ranges Shire Council acknowledges the Dja Dja Wurrung, Taungurung and Wurundjeri Woi Wurrung Peoples as the Traditional Owners and Custodians of this land and waterways. Council recognises their living cultures and ongoing connection to Country and pays respect to their Elders past, present and emerging.

Council also acknowledges local Aboriginal and/or Torres Strait Islander residents of Macedon Ranges for their ongoing contribution to the diverse culture of our community.

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Executive summary

The *Environment Strategy* (the Strategy) was first adopted by Council in 2016. Minor updates were conducted annually as a part of Council's Annual Environment Report process to reflect legislation or policies changed.

Many of the actions included in the original Strategy have now been achieved. In addition, the organisation's environmental priorities have changed to reflect the changing external context. As such, a comprehensive review of the Strategy has been conducted to ensure it continues to provide a useful guide to inform Council's environmental work program, Council decision making and the allocation of resources.

This updated Strategy retains the existing vision and principles included in the original Strategy but sets out new emerging priorities for the organisation and a suite of proposed actions to address these priorities. The Strategy's key emerging priorities are:

- **Climate emergency** - Responding to the climate emergency by achieving zero net emissions as an organisation by 2030, supporting residents and businesses to transition to a low carbon future and advocating for climate action to other levels of government.
- **Sustainable transport** – Facilitating reduced car use through investment in and advocacy for improvements to the shire's walking, cycling and public transport networks as well as initiatives that support the transition to electric vehicles.
- **Waterway health** – Improving the health of waterways through improved storm water management and investment in on-ground restoration works.
- **Biolinks and habitat links** – Facilitating ecological connectivity throughout the landscape to support biodiversity and contribute to carbon sequestration.
- **Private land conservation** – Supporting private land managers to implement regenerative approaches to land management.
- **Waste minimisation** - Facilitating reduction of waste and the re-use of resources through a circular economy.
- **Community engagement and partnerships** – Continuing to raise awareness about environmental values and risks and working in partnership with community groups, government departments and agencies and other councils to achieve shared goals.

Council will report on the Strategy's implementation in its Annual Environment Report. A review of the Strategy will occur every 5 years.

Introduction

Background

The *Environment Strategy* was first adopted by Council in June 2016. The Strategy was intended to be a dynamic, high level strategic document which was to be updated annually.

Since its adoption, Council has prepared four Annual Environment Reports for the years 2016/17, 2017/18, 2018/19 and 2019/20 which informed updates to the Strategy. To date, most updates have been relatively minor and have comprised references to legislative and policy changes at a state and federal level.

Most of the 2016 actions have now been completed. In addition, Council has adopted new positions on matters such as emissions reductions and climate change. A series of state government legislative and policy changes have also occurred which are relevant to Council's environmental work.

Whilst the original Strategy's vision, principles, objectives and policy statements are still considered relevant given Council's achievements, it's recent declaration of a Climate Emergency, legislative changes, and a number of emerging priorities, the themes and actions listed in the 2016 Strategy have been updated to ensure the Strategy continues to provide a useful framework for strategic planning and resource allocation. The community engagement and monitoring framework has also been updated to ensure consistency with other environmental strategies and plans.

Community input

This updated version of the Strategy was developed taking into account the outcomes of recent community consultation processes, including those listed below.

Community Vision Assembly 2021

In early 2021 Council, through an independent consultant, appointed 28 participants to a Community Vision Assembly who were representative of the broader Macedon Ranges Shire community. The purpose of the group was to develop a community vision and provide input into the Council Plan. The Assembly developed a vision and set of priorities and actions organised under four themes and remits.

Community vision statement:

With our unique regional identity, Macedon Ranges Shire embodies a caring, resilient approach to community; through our robust local economy, protection of the natural environment and a collaborative commitment to inclusivity for all.

Note that this community vision statement had not been considered or endorsed by Council at the time of reporting in mid-June 2021.

Priorities and actions:

The following priorities were identified for the "healthy environment, healthy people" theme and the "climate change" remit:

“Healthy environment, healthy people” priorities:

- *Waste – further promotion and education of responsible waste management.*
- *Energy – achieve 100 per cent renewable energy by Council, residents and businesses.*
- *Natural environment – protect, preserve and enhance bushland, waterways.*
- *Transportation – encouraging safe everyday alternatives to car use / provide safe cycle pathways and walking/footpaths.*
- *Health – greater commitment to community health programs and initiatives.*

“Climate change” remit priorities:

- *Prioritising car use reduction through inter-town and intra-town networks, safe walking and cycling tracks and effective, easy and cheap public transport.*
- *Consideration of innovative closed loop resource use and education around FOGO use.*
- *Continued rollout of the community climate change action plans across the shire’s township with firm dates for rollouts.*

Financial priorities:

The Citizen’s Assembly also recommended the following weightings to guide how Council prioritises its resources:

- Adopted strategy – 17%
- Community benefit – 15%
- Financial – 18%
- Risk – 10%
- Asset renewal – 9%*
- Organisational – 7%
- Environment – 24%

* This percentage requires careful consideration as one of Council’s core and key roles is the sustainable management of assets. The Local Government Act 2020 places increased importance on the management of assets, requiring a standalone Asset Plan that Council will effect by 1 July 2022.

Environment Strategy 2016

The *Environment Strategy* was originally developed with substantial input from the community in the form of online surveys, drop in sessions, stakeholder meetings and receipt of submissions. Overall, the consultation highlighted the following community priorities:

- Ensuring community engagement, involvement and partnerships.
- Establishing strong objectives, clear actions, measurable outcomes and an annual reporting process.
- Improving environmental performance of the built environment and improving compliance with environmental planning regulations.
- Taking action to mitigate and adapt to climate change.
- Enhancing biolinks on public and private land.
- Supporting waterway health.

Biodiversity Strategy 2018

Community input to the *Biodiversity Strategy 2018* included online surveys, drop in sessions, stakeholder engagement meetings and a Community Biodiversity Forum. This consultation highlighted the following community priorities:

- Increase Council's focus on private land conservation and landholder education.
- Improve protection of critically endangered grasslands.
- Increase compliance with native vegetation regulations and land management plans.
- Increase resources for bushland reserves and management, and review bushland reserve zonings.
- Complete and implement a roadside management plan.
- Continue support for community environment groups.
- Continue to grow Council's community engagement program.

Waste and Resource Recovery Strategy 2021-24

The draft *Waste and Resource Recovery Strategy 2021-24* was released for public feedback in early 2021. The outcomes of this community consultation were being compiled at the time of reporting in mid-June 2021.

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Council policy context



Vision

A place where Council leads by example and works with the community to maximise improved environmental outcomes in all aspects of life.

Key principles

- The *Environment Strategy* should inform, and be integrated into, the Council Plan
- Environmental policy is to be flexible and allow for local application
- Environmental outcomes are to be a key consideration in major decisions
- Plans and actions primarily delivering environmental outcomes also deliver other benefits - including social and community well-being, financial benefits for Council, and economic benefits for the local community – which should be acknowledged and promoted by Council
- Decision-making should be in the context of a long term “planning horizon”, accounting for the cumulative environmental impact of individual decisions and actions
- Strong partnerships between Council and the community and / or Council and other management agencies will deliver greater environmental outcomes.

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Theme 1: Climate emergency

Background

Council declaration of a Climate Emergency

The need to address the causes and impacts of climate change is urgent. On 24 March 2021, Council declared a state of Climate Emergency. By doing so, Council acknowledges that urgent action is required to address the causes and impacts of climate change and avoid irreversible disruption to society, the economy and ecosystems.

What is the Climate Emergency?

Like other emergencies, climate change presents an immediate and significant risk, and requires urgent action to avoid the risk and its associated impacts.

Global context

Work by the Intergovernmental Panel on Climate Change (IPCC) identifies that limiting global warming to 1.5 degrees is required to mitigate against the worst effects of climate change (*Climate Report 2018* and *Special Report on Global Warming of 1.5 degrees*). The IPCC estimates that based on current trajectories, this 1.5 degree threshold will be reached by between 2030 and 2052.

Many scientists and researchers argue that global greenhouse emissions already exceed the level necessary to prevent 1.5 degrees of warming and that increased carbon sequestration, or “global cooling” is required in order to prevent catastrophic impacts such as inundation of island nations and low-lying settlements, destruction and loss of coral reefs, wide scale loss of terrestrial and aquatic plant and animal species, destruction of natural and built environments associated with fires and floods and other extreme weather events, reduced water availability and reduced capacity to produce food.

Regional context

The *Victorian Climate Projections 2019* produced by the Victorian Government, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Bureau of Meteorology (BoM) indicate that current trends follow a high emissions scenario. For the Loddon Campaspe region, this trajectory is likely to result in increasing temperatures, fire risk and variability in rainfall which will inevitably impact the region’s natural systems as well as the livelihoods and lifestyles of all sectors of the community.

Local context

The impact of climate change within the shire is likely to follow the patterns forecast for other parts of the Loddon Campaspe region and Victoria more broadly. Within the shire, species adapted to the cooler temperatures of higher elevations are likely to be most vulnerable, such as Snow Gums and the wet forests of Mount Macedon. Farmers within the shire will need to adapt to the drier conditions, Council operations will need respond to more frequent storm events, fires and hot days which impact outdoor work, while the community more broadly will need build resilience to more heat waves and increased emergencies.

In terms of emissions within the shire, it is estimated that in 2017/18 approximately 51 percent was from electricity and 11 per cent was from gas use across the residential,

commercial and industrial sectors, 30% was from on-road transport and 2% was from waste. The remaining 6% is from wastewater and agriculture.

How are governments and industry responding?

The following directions are emerging in response to the current climate emergency:

Energy transition

In May 2021 the International Energy Agency released the *Net Zero by 2050: a Roadmap for the Global Energy Sector* which proposes a pathway for phasing out coal, gas and oil production. Financial entities are also increasingly expressing caution about investing in coal and gas projects due to the risk that they will become stranded assets.

While Council is already procuring its electricity from renewable sources, the global energy transition will have implications for Council's use of natural gas and LPG as well as for future development in the shire.

Distributed energy, micro-grids and virtual power plants

Distributed energy refers to energy systems that typically are installed on homes or businesses such as solar PV, home batteries and electric vehicles. The Australian Renewable Energy Agency (ARENA) estimates that, by 2050, distributed energy will contribute up to 45 per cent of Australia's electricity generation. This change from large, centralised power stations will require changes to regulations and the transformation of the electricity grid.

Some communities are establishing micro-grids to generate and distribute renewable energy to local users. These micro-grids can operate independently of the broader grid, enabling communities to be energy independent. Micro-grids can be established using one energy source, such as a solar PV array on a large building, or multiple distributed energy sources in a locality such as home solar and batteries across a street or locality.

A virtual power plant is a network of distributed energy resources which are controlled remotely to deliver electricity to the grid when it is needed. These energy sources can be dispersed across a broader area than a micro-grid. A number of large retailers are already inviting owners of home batteries in some states to sign up to virtual power plants. The Victorian Government also launched a Battery Aggregation Pilot program which seeks to establish approximately six aggregation programs across the state.

These innovations in energy distribution in Australia present opportunities for the shire's townships, enabling communities to overcome existing network constraints which limit roof top solar connections and facilitating energy independence and resilience.

Local renewable energy generation

In recent years the Macedon Ranges Sustainability Group investigated development of a Community Energy Park on land currently managed for timber harvesting in Woodend. The park aims to generate sufficient energy to power all households in the shire with a combination of wind, solar and battery storage. The project is currently on hold due to legislation that places limitations on how the land for the proposed Community Energy Park can be used.

Low emissions vehicles

As of May 2021, 15 countries had adopted targets to phase out fossil fuel dependant vehicles from between 2026 and 2050. Several large car manufacturers such as General Motors, Ford and Volvo have also announced their intention to phase out production of combustion engine vehicles in the next 10 or 20 years.

The global transition to electric vehicle production will have implications for Council's fleet as well as Council's role in ensuring electric vehicle charging infrastructure is available for residents and visitors to the shire.

Hydrogen fuel cell vehicles are also being explored by some vehicle manufacturers, particularly for heavy vehicles. Broad take up of hydrogen vehicles internationally has been slower than fully electric vehicles, partly due to the lack of refuelling infrastructure. Nevertheless, hydrogen vehicles are likely to play an important part in reducing global emissions and they present an opportunity for Council, particularly when considering transitioning its heavy vehicle fossil fuel fleet to low emission alternatives.

Active and public transport

Governments around the world are increasingly recognising the importance of developing safe and connected active transport infrastructure. Improving walking, cycling and public transport not only contributes to reducing greenhouse gas emissions, it also facilitates health and wellbeing, increases the independence of young people and enhances the ability for vulnerable groups in the community to access services and maintain social connections.

The need to improve access to transport options, particularly public transport, is recognised in the *Council Plan 2017-2027*, *Disability Action Plan 2019 – 2027: Report on community consultation*, *Participate: Positive Aging Plan 2020-2025* and *Elevate: Macedon Ranges Shire Council Youth Strategy 2018-2028*. Even so, these plans do not specify what specific transport services or infrastructure are priorities for Council advocacy or investment.

In terms of walking and cycling, Council maintains data on the extent and condition of its footpath network and has developed maps and information about the shire's recreational routes. Data on the shire's on-road bicycle lanes, shared paths and bicycle parking infrastructure is limited.

Currently, approximately 30 per cent of the shire's emissions is from road based transport.

Carbon offset markets

The market for carbon offsets is increasing as governments and businesses seek to achieve zero net emissions.

The Australian Government's Emission Reduction Fund provides an existing mechanism for rural land owners to achieve carbon credits for carbon sequestration initiatives on their properties through plantings or soil. In April 2021 the Australian Government launched their Carbon + Biodiversity Pilot project which aims to reward farmers for improving on-farm biodiversity together with carbon sequestration projects eligible for funding under the Emissions Reduction Fund. The learnings from this pilot project are likely to inform future biodiversity and carbon offset programs.

The Victorian Government also plans to fund the Victorian Carbon Farming Program which will support land owners to plant agroforestry and shelterbelt trees and access existing carbon markets.

These offset markets present opportunities for the shire's farmers and rural land owners to receive financial support to both contribute to local carbon sequestration while also enhancing biodiversity.

Sustainable development

Current state and national building regulations establish a low standard for energy and water efficiency. As a result, 23 local councils in Victoria have introduced enhanced standards and assessment frameworks into their planning schemes, and numerous councils have introduced sustainable design policies and frameworks for council buildings.

In addition, the community is increasingly becoming aware of the financial, environmental and amenity benefits of resource efficient building design.

In response to this growing pressure, in February 2021 the Victorian Government launched the *Environmentally Sustainable Development of Buildings and Subdivisions – A roadmap for Victoria’s planning system*. In addition, in 2021 the Victorian Government launched a review of the state’s building approvals system which may also deliver higher sustainable design standards for buildings.

Concurrently, a number of local councils across Victoria are working together to develop policies and assessment frameworks to facilitate zero carbon developments and sustainable subdivisions.

Only a small percentage of new dwellings constructed in the shire requires a planning permit. Therefore, changes to local planning policies, while important, will only have a limited impact on improving the environmental performance of the shire’s building stock. As a result, the reforms currently underway for the state’s building system provide a good opportunity to achieve more wide-spread sustainability outcomes in the built environment.

Much work to development sustainable design policies and frameworks has been coordinated by the Council Alliance for a Sustainable Built Environment (CASBE). CASBE is a member based organisation that provides a coordination and advocacy function for its member councils. While Macedon Ranges Shire Council is not a member of CASBE, officers stay up to date with CASBE projects and initiatives.

Low emissions concrete and asphalt

It is estimated that the manufacture of concrete and cement constitutes approximately 8 per cent of annual global emissions (*Making Concrete Change: Innovation in Low-carbon Cement and Concrete*, Chatham House, 2018). Low carbon options are emerging that utilise new manufacturing processes and inputs. Some of these technologies use waste products such as fly ash and reclaimed concrete, glass and rubber, thereby contributing to the circular economy as well as emission reductions.

As a large consumer of concrete and asphalt for footpaths and roads, these innovations present opportunities for Council to reduce emissions from his capital works program while contributing to the growth of low emissions industries and jobs.

Urban cooling

Urban settings are often warmer than their rural surrounds due to the hard surfaces which absorb and radiate heat. As the climate warms this effect will be amplified. In response, many local governments around the world are implementing urban cooling strategies with ambitious targets for canopy cover and public plantings. These strategies are often complemented by policies and regulations ensuring appropriate protections are in place for mature trees and trees of significance to the community. These tree retention and urban planting strategies often contribute to enhancing biodiversity in urban areas.

Central Victorian Greenhouse Alliance

The Central Victorian Greenhouse Alliance (CVGA) is a network of 13 local governments in Central and Northern Victoria, including Macedon Ranges Shire Council. The CVGA facilitates climate change action through collaborative projects and advocacy.

Major projects overseen by the CVGA involving Macedon Ranges Shire Council include delivery of bulk street light replacements and bulk electric vehicle charging station installations across the region. Facilitation of renewable energy procurement across 46 councils through the Victorian Energy Collaboration was also delivered as a collaborative project by the state's greenhouse alliances and a project team hosted by the City of Darebin.

The CVGA also deliver the More Australian Solar Homes (MASH) program which is a solar and batteries bulk-buy and installation program. The not for profit program also regularly enables one free solar installation for community groups, kindergartens or schools.

Legislative and policy context

- **Local Government Act 2020** – Requires councils to consider climate change as an overarching governance principle.
- **Victorian Climate Change Act 2017** – Establishes the Victorian Government's target to achieve zero net emissions by 2050 and interim targets of 28-33 per cent by 2025 and 45-50 per cent by 2030 below 2005 levels.
- **Victoria's Climate Change Strategy** – Sets out the Victorian Government's response to climate change, including a pathway to achieve its emissions reduction target.
- **Adapt Loddon Mallee** – A regional climate change adaptation plan prepared by the Victorian Government (in progress as of May 2021).
- **Loddon Mallee Region Renewable Energy Roadmap** – A regional plan that identifies seven priorities to guide the region's transition to renewable energy – i.e. enhancing grid infrastructure, maximising community benefits from large scale renewable energy projects, optimising distributed energy resources, maximising potential for bioenergy supporting community energy, understanding emerging technologies and being proactive about future jobs and training needs.
- **Macedon Ranges Climate Change Action Plan 2017** – Establishes Council's emission reduction target for 30 June 2021 as well as Council's goal to achieve zero net emissions by 2030.
- **Macedon Ranges Walking and Cycling Strategy 2014-2024** – Establishes Council's priority off and on-road walking and cycling network as well as an implementation plan for infrastructure development and supporting actions.
- **Shire-wide Footpath Plan 2018** – Sets out high, medium and low priority footpaths for construction over a 15 to 20 year time period, subject to funding.

What we have achieved to date

Since adoption of the *Environment Strategy* in 2016, Council's key climate change achievements include:

- **Emission reductions** - Reduction in greenhouse gas emissions from Council operations by approximately 30 per cent from 2014/15 levels. This has mainly been achieved through replacement of inefficient street lights with LEDs and installation of solar panels on 17 buildings.
- **Renewable energy** - Commitment to procure all of Council's electricity from renewable sources from 1 July 2021 through the Victorian Energy Collaboration (VECO).
- **Community action** - Facilitation of community climate change action plans for Malmsbury and the district of Woodend, with action plans in progress for Lancefield and Romsey.
- **Sustainable Design** – Delivery of a sustainable design service for two years in 2018 and 2019 which included provision of individual advice to approximately 50 households, delivery of workshops and information sessions that reached over 500 people and preparation of Sustainable Design Fact Sheets.
- **Walking and cycling network** – Development and maintenance of approximately 264km of footpaths and approximately 3km of on-road bicycle lanes. The shire also supports an off-road / shared path network, the extent of which is to be confirmed.

Emerging priorities

Given the above context and achievements, emerging priorities for Council include:

- Giving effect to Council's declaration of a **climate emergency**.
- Achieving Council's target of **zero net emissions** by 2030.
- Reducing emissions from **leased facilities** which are not included in Council's emissions profile.
- Facilitating Council's **transition away from natural gas and LPG**.
- Facilitating Council's **transition away from fossil fuel dependant vehicles** and plant.
- Understanding the shire's sustainable transport needs and enabling the community to transition to **sustainable, low emissions transport** options such as electric vehicles, walking, cycling and public transport.
- Facilitating opportunities to establish local renewable energy networks through initiatives such as **distributed energy, microgrids and community batteries**.
- Reducing emissions and enhancing the environmental performance of the **built environment**. This applies to Council buildings and facilities as well as new development.
- Facilitating Council and the community's capacity to **adapt to the changing climate**.
- **Raising awareness** amongst residents and businesses about the urgency of the climate crisis and **supporting the community** to reduce emissions.
- Reducing emissions from **procurement of products, materials and services, including from road and footpath construction** (see Waste theme for related actions).

Climate emergency objectives

Objectives 2, 3, and 4 have been retained from the 2016 version of the Environment Strategy. Objective 1 is new and reflects Council's declaration of a climate emergency.

1. To develop a response to the climate emergency for Council operations and the community.
2. To work towards a "zero net emissions" status for Council operations.
3. To strengthen support for community initiatives for climate change action and renewable energy generation, within the resource limits of Council.
4. To advocate for stronger climate change action across all levels of government and partner with management stakeholders to progress action

Climate emergency policy statements

The following policy statements have been retained from the 2016 version of the Environment Strategy:

- Council acknowledges that human activity over the past two hundred years has significantly contributed to climate change.
- Council acknowledges the greenhouse emissions generated by its daily work activities, and will work towards reducing greenhouse emissions as a means of contributing to climate change mitigation
- In working to continuously mitigate Council's impact on climate change, Council will follow the energy hierarchy below:
 - reduce energy consumption
 - improve energy efficiency
 - invest in on-site and local renewable energy generation
 - purchase externally generated renewable energy
 - offset emissions
- Council acknowledges that the impacts of climate change will continue to be experienced across the Shire, and will impact on key values of the Shire – its biodiversity, its landscapes and waterways, its agricultural productivity, and the lifestyles the Shire provides. Council will continue to plan and act to adapt to climate change to the best of its capacity, at the local, regional and broader levels.
- Where possible, Council will support and participate in local and regional initiatives for energy efficiency and renewable energy as a means of reducing greenhouse emissions from the Shire, within state government policy and legislative frameworks.
- Council acknowledges the work of community groups and networks extending from community hubs like neighbourhood houses in facilitating action to mitigate and adapt to climate change.

Climate emergency actions

Legend

Internal	Can be resourced with existing internal staff and operational funds
\$	< \$50,000
\$\$	\$50,000 - \$100,000
\$\$\$	\$100,000+

Very high	Commence within 12 months
High	Commence within 2 years
Medium	Commence within 4 years
Low	Commence within 5 years

#	Action	Priority	Resources	Lead Unit
C1	Develop a Zero Net Emissions Plan for Council's emissions profile.	Very high	Internal	Environment Unit
C2	Develop a Council Climate Emergency Action Plan that identifies priority mitigation and adaptation actions to address the climate emergency within Council.	Very high	Internal	Environment Unit
C3	Develop a Community Climate Emergency Action Plan in collaboration with the Macedon Ranges Sustainability Group that identifies a pathway to zero net emissions for the community and initiatives to support community adaptation.	Very high	Internal*	Environment Unit
C4	Develop a Leased Buildings Emissions Reduction Plan for Council owned, leased facilities which do not form part of Council's emissions profile.	High	Internal	Environment Unit
C5	Develop a Sustainable Buildings Policy and set of minimum sustainable design standards for Council building projects.	Very high	Internal	Environment Unit
C6	Develop a Carbon Offsets Policy to guide Council's acquisition of offsets if and when needed to achieve zero net emissions.	High	Internal	Environment Unit
C7	Develop an Urban Cooling Strategy that establishes targets for canopy cover and public plantings and which identifies actions to ensure appropriate protections are in place for significant trees across the shire.	Medium	\$	Open Space Unit
C8	Continue facilitating development of community climate change action plans and support communities with their ongoing implementation.	Very high	Internal	Environment Unit

#	Action	Priority	Resources	Lead Unit
C9	Support and, where possible, facilitate local renewable energy projects that increase community access to renewable energy, including through More Australian Solar Homes (MASH).	High / As needed	Internal*	Environment Unit
C10	Increase communications and engagement about the urgency of climate change and ways to take action, including promotion of bulk buy programs and government incentives.	Very high	Internal*	Environment Unit
C11	Provide targeted support to businesses to assist them to reduce their emissions and their environmental footprint more broadly.	High	Internal*	Environment Unit
C12	Develop a Sustainable Transport Strategy for the shire that clearly sets out the shire's infrastructure and public transport priorities to inform investment and advocacy.	High	\$	Asset Management and Infrastructure Planning Unit
C13	Accelerate implementation of Council's Walking and Cycling Strategy 2014-2024 and Shire-wide Footpath Plan 2018	Very high	\$\$\$	Asset Management and Infrastructure Planning
C14	Advocate to the Victorian Government for improved public transport within the shire.	High / As needed	Internal*	Asset Management and Infrastructure Planning
C15	Ensure Council's Fleet Policy facilitates the transition to low emissions vehicles and prepare a fleet transition plan.	High	Internal	Infrastructure Operations Unit
C16	Continue to install public electric vehicle charging stations across the shire, prioritising the eastern part of the shire following the installation of charging stations in Woodend and Kyneton in 2021.	Very high	\$\$\$	Environment Unit
C17	Investigate establishment of off-grid community facilities that can be used as neighbourhood safer places or relief and recovery centres during emergencies.	High	\$	Environment Unit
C18	Advocate for strong climate change action to other levels of government.	High / As needed	Internal*	Environment Unit
C19	Advocate for improved sustainable design standards in planning and building regulations.	High / As needed	Internal*	Environment Unit

#	Action	Priority	Resources	Lead Unit
C20	Support advancement of the hydrogen vehicle industry as appropriate.	High	Internal	Environment Unit
C21	Increase communications about Council's emission reduction and climate change achievements.	Very high / as needed	Internal	Environment Unit
C22	Secure staff resources for climate change action to enable delivery of the above actions.	Very high	\$\$	Environment Unit

**Subject to sufficient staff resourcing*

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Climate emergency indicators

#	Indicator	Measure	Unit
Climate emergency indicator 1	Greenhouse gas emissions (GHG) from Council operations	Total GHG emissions	Tonnes CO2-e
		GHG emissions from kerbside waste	Tonnes CO2-e
		GHG emissions from fuel	Tonnes CO2-e
		GHG emissions from natural gas and LPG	Tonnes CO2-e
Climate emergency indicator 2	Greenhouse gas emissions (GHG) across the shire	Total GHG emissions <i>(reported on as data is updated)</i>	Tonnes CO2-e
		GHG from residential uses	Tonnes CO2-e
		GHG emissions from commercial and industrial uses	Tonnes CO2-e
		GHG emissions from transport	Tonnes CO2-e
Climate emergency indicator 3	Extent of the shire's transition to sustainable transport	Extent of the shire's cycling network	Km of on-road bike paths
		Extent of the shire's walking network	Km of footpaths
		Number of electric vehicle charging stations in the shire	# charging stations
		Use of public electric vehicle charging stations	kWh of electricity used per charging station
		Number of electric vehicles in Council fleet	# electric vehicles
Climate emergency indicator 4	Community climate change action	Number of homes powered by renewable energy.	# and % dwellings with solar panels

Theme 2: Biodiversity

Background

Biodiversity encompasses all components of the living world: the number and variety of plants, animals and other living things, including fungi and micro-organisms across our land, oceans, rivers and wetlands. It includes the genetic information, the habitats and ecosystems in which they live and their connections with each other.

In the Macedon Ranges, the topography, range of altitudes and localised climatic patterns result in rich and unique biodiversity values in the form of many different ecosystems, hosting a wide range of native plants and animals. The shire is very fortunate to have rich biodiversity present on public and private land.

Council's *Biodiversity Strategy 2018* sets out Council's plans for protecting and enhancing biodiversity in the shire.

Roles and responsibilities

Council managed land

Council manages over 600ha of bushland and conservation reserves as well as over 1,700km of roadsides, many of which support remnant native vegetation of medium to high conservation value. These small reserves and linear corridors often contain the only remaining remnant native vegetation in an otherwise cleared or highly modified landscape.

State government managed land

Parks Victoria and the Department of Environment, Land, Water and Planning (DELWP), manage the shire's larger conservation areas such as the Macedon Regional Park, the Wombat State Forest, the Lerderderg State Park and the Cobaw State Forest.

Regional Roads Victoria, VicTrack and VLine are also responsible for managing large areas of road and rail reserves, many of which support high quality native vegetation, including threatened species.

Water authorities and retailers also play an important role in managing waterways and reservoirs. Their roles are outlined under the "Water" theme in this strategy.

Private land

Over 80 per cent of the shire comprises private land. As such, supporting private land owners to conserve and enhance the environmental values of their properties is critical to achieving biodiversity outcomes across the shire.

Legislative and policy context

- **Australian Government Threatened Species Strategy 2021-2031** – Establishes two overarching objectives: 1) to improve the trajectories of priority threatened species and

2) to improve the condition of priority places. Action Plans to support delivery of the strategy were being prepared in 2021.

- ***Protecting Victoria's Environment - Biodiversity 2037*** – Establishes the Victorian Government's vision and key directions for biodiversity in Victoria.
- ***North Central Regional Catchment Strategy 2021-27*** – The strategy highlights the Upper Catchment (which includes the Cobaw Biolink) and the Kyneton Woodlands as priority areas for action.
- ***Macedon Ranges Statement of Planning Policy*** – Establishes settlement boundaries for the shire's main towns and provides a high level basis for strategic planning in the shire. The Policy was introduced into the Macedon Ranges Planning Scheme in April 2021.
- ***Macedon Ranges Roadside Conservation Management Plan (draft as of May 2021)*** – Establishes policies, protocols and actions aimed at protecting the conservation values of Council managed roadsides, while managing fire risk and ensuring road safety.

What we have achieved to date

Since adoption of the *Environment Strategy* in 2016, Council's key biodiversity achievements include:

- Completion of the *Biodiversity Strategy 2018*.
- Completion of the draft *Roadside Conservation Management Plan 2021*.
- Completion of a number of environmental management plans and masterplans for bushland and conservation reserves.
- Establishment of the shire-wide biodiversity monitoring program which utilises citizen science to undertake bird surveys, nest box monitoring and spotlight surveys on an annual basis across 84 monitoring sites.
- Delivery of a private land conservation program in 2020 and 2021 (branded "Healthy Landscapes for Healthy Livestock") which engaged over 420 rural land owners through individual on-farm property visits, two short courses and multiple workshops and field days. This program will be extended for 12 months in 2021/22 in partnership with other local councils and agencies.
- Creation of a cultural heritage engagement program working with the three Traditional Owner groups in the shire.
- Support for establishment of the Macedon Ranges Field Naturalists Group
- Support for the planning, promotion and implementation of various biolink projects across the shire in collaboration with Landcare and the Biolinks Alliance.
- Continued delivery of an annual environment events program.
- Continued delivery of Council's roadside weed program.
- Expansion of restoration works and improvements to infrastructure and signage in Council's bushland and conservation reserves.
- Delivery of the Nature Stewards community leadership and education program in partnership with Melton and Hume City Councils.

Emerging priorities

- Continued implementation of Council's **Biodiversity Strategy 2018**.
- Furthering development and implementation of the **biolinks plans** included in the *Biodiversity Strategy 2018*.
- Implementation of the **Strategic Habitat Links** between biolink areas that enhance habitat connectivity between remnant patches.
- Continuation of Council's **private land conservation program** that promotes conservation and regenerative agricultural practices.
- Increasing resources for **compliance** to ensure illegal native vegetation removal is addressed, environmental planning permit conditions are implemented and Council's compliance actions are consistent and transparent.
- Continued engagement with **Traditional Owners** and facilitation of opportunities for Traditional Owner experiences and work on country.
- Continued engagement of the community in Council's **biodiversity monitoring program**.
- Expanding Council's **ecological and cultural burn program**.
- Continued growth of Council's environment engagement program to increase **environmental literacy** in the community.
- Improving the **visitor experience** in Council managed bushland and conservation reserves, including through the introduction of interpretive signage.
- Enhancing the **conservation value of roadsides**, including through reducing the spread of invasive grass species, raising awareness about roadside conservation values and permitted roadside activities.
- Enhancing opportunities for **wildlife to cross roads safely**.

Biodiversity objectives

The following objectives are from Council's *Biodiversity Strategy 2018*:

- Objective 1: Protect existing biodiversity and native vegetation.
- Objective 2: Improve existing biodiversity and native vegetation across public and private land.
- Objective 3: Increase the extent of native vegetation cover for connectivity.
- Objective 4: Improve Council and the community's understanding and connection to biodiversity.
- Objective 5: Enhance the capacity of community groups to undertake conservation activities.

Biodiversity policy statements

The *Biodiversity Strategy 2018* was based on the following guiding principles:

- Protect existing natural habitats to best conserve biodiversity.
- Use multiple sources of knowledge (science-based, Traditional Owner, community), planning and monitoring to inform conservation actions.
- Operate at the landscape scale across all land tenures.
- Work closely with community and other stakeholders - recognising the critical link between ecological, cultural and spiritual systems.
- Be agile and responsive - allow the strategy to develop, adapt and evolve.

- Consider climate change in all conservation efforts with a focus on building natural ecosystem resilience and connectivity.
- Acknowledge and respect the culture, values, innovations, practices and knowledge of Traditional Owners and Aboriginal Victorians.
- Base decision making on the precautionary principle; whereby preventative measures should be taken in the face of scientific uncertainty

Biodiversity actions

Legend

Internal	Can be resourced with existing internal staff and operational funds
\$	< \$50,000
\$\$	\$50,000 - \$100,000
\$\$\$	\$100,000+

Very high	Commence within 12 months
High	Commence within 2 years
Medium	Commence within 4 years
Low	Commence within 5 years

#	Action	Priority	Resources	Lead Unit
B1	Continue to implement Council's Biodiversity Strategy 2018 .	Very high	As set out in the strategy.	Environment Unit
B2	Progressively implement Council's Roadside Conservation Management Plan once adopted.	Very high	As set out in the strategy.	Environment Unit
B3	Continue to work with the community to develop and implement the biolinks plans identified in the <i>Biodiversity Strategy 2018</i> .	Very high	Internal or \$\$ to accelerate implementation	Environment Unit
B4	Progress initiatives that support enhancement of the Strategic Habitat Links identified in the Council's <i>Biodiversity Strategy 2018</i> .	Very high	Internal or \$\$ to accelerate implementation	Environment Unit
B5	Establish the private land conservation / regenerative agriculture program as an ongoing program.	Very high	\$\$	Environment Unit
B6	Increase resources for environmental compliance activities.	High	\$\$	Environment Unit
B7	Develop a Native Vegetation Compliance Policy to guide how Council responds to illegal native vegetation removal.	High	Internal	Environment Unit
B8	Continue Council's cultural heritage assessments and Traditional Owner engagement program and	Very high	Internal	Environment Unit

#	Action	Priority	Resources	Lead Unit
	progressively implement the associated recommendations.			
B9	Develop an ecological and cultural burn program for reserves and roadsides.	High	\$	Environment Unit
B10	Continue Council's biodiversity monitoring, citizen science and environmental engagement program.	Very high	Internal	Environment Unit
B11	Implement vehicle hygiene processes across Council operations to prevent the spread of weed species.	Very high	Internal	Environment Unit
B12	Implement a dedicated treatment program for invasive grasses such as Chilean Needle-grass and Serrated Tussock.	High	\$	Environment Unit
B13	Install Significant Roadside Vegetation signage in appropriate locations.	Very high	\$\$	Environment Unit
B14	Investigate opportunities to reduce wildlife collisions and develop safe wildlife road crossings , including through use of the VicRoads Fauna Sensitive Road Design Guidelines if and as appropriate.	Medium	\$	Engineering and Resource Recovery Department

Biodiversity indicators

#	Indicator	Measure	Unit
Biodiversity Indicator 1	Biodiversity across the shire	Presence and abundance of biodiversity indicator species	#, distribution and diversity of woodland birds # and distribution of Brush-tailed Phascogale # and distribution of Powerful Owl # and distribution of Greater Glider
Biodiversity Indicator 2	Conservation value of Council managed land	Treated weeds on roadsides Conservation value of bushland and conservation reserves. Ecological and cultural burns completed	Hectares of weeds treated % cover change since 30 June 2015. # infestations of Serrated Tussock and Chilean Needle-grass treated. TBC # ecological or cultural burns conducted
Biodiversity Indicator 3	Community involvement in conservation	Participation in land management workshops Attendance at biodiversity events such as walks and talks Health and activity of Landcare and Friends Groups	# participants # attendees Landcare report card score

Theme 3: Water

Background

The Macedon Ranges Shire is located across the Great Dividing Range which means that the land north of the range drains to the Murray River via the Campaspe and Coliban Rivers and is within the North Central Catchment. The land south of the range drains to the Maribyrnong River and, eventually, Port Philip Bay and is within the Port Philip and Westernport Catchment.

Water security and the health of waterways will be increasingly at risk as the shire's population increases and as the climate changes.

Water-wise cities

The International Water Association has developed 17 principles to assist local governments implement measures to be manage water resources in a sustainable manner. These principles fall within four levels of action: regenerative water services, water sensitive urban design, basin connected cities and waste-wise communities. The Association's "building blocks for action" are 1) vision, 2) governance, 3) knowledge and capacity, 4) planning tools and 5) implementation tools.

The Associations principles and building blocks provide a useful framework for Council to assess its capacity in relation to water resource management and develop and implement a vision for sustainable water management.

Roles and responsibilities

Water resources are largely managed by state government water authorities and water corporations. Within the shire, a summary of these roles and responsibilities is provided below.

Water authorities

Catchment	Organisation	Responsibility
Port Philip and Westernport	Melbourne Water	Bed and banks of creeks and rivers
	Greater Western Water*	Drinking water and waste water treatment
	Southern Rural Water	Rural water licenses and ground water
	Port Philip and Westernport Catchment Management Authority**	Peak natural resource management agency
North Central	North Central Catchment Management Authority	Bed and banks of creeks and rivers and peak natural resource management agency
	Coliban Water	Drinking water and waste water treatment
	Goulburn-Murray Water	Rural water licenses and ground water

* Formally Western Water prior to July 2021

**To be integrated into Melbourne Water from 1 January 2022

Council's role

Council plays the following roles in collaboration with the above mentioned agencies:

- Consumer of water for sports grounds, parks, gardens and community facilities
- Manager of numerous waterway reserves (other than bed and banks) which Council owns or for which Council is the designated Crown Land Committee of Management
- Manager of storm water for catchments less than 60ha
- Regulator of domestic waste water treatment systems

Legislative and policy context

- **Water for Victoria** – Establishes the Victorian Government's approach to water management across the state and priorities for action which include the Campaspe River and riparian works led by the North Central Catchment Management Authority
- **Melbourne Water Healthy Waterways Strategy** – Establishes river health targets for the catchment and priorities for action including most waterways and tributaries in the Macedon Ranges south of the Dividing Range.
- **North Central Waterway Strategy 2014-2022** – Establishes priorities and a regional work program for managing and improving the region's waterways. Priority waterways in the Macedon Ranges Shire are Woodend Five Mile Creek and the Campaspe River.
- **Amendment VC154 Stormwater management – Planning Advisory Note 75** – Sets out the integrated water management standards and best practice performance objectives for new developments with reference to the *Urban Stormwater – Best Practice Environmental Management (BPEM) Guidelines 1999*.
- **Domestic Waste Water Management Plan 2019** – Establishes priorities for assessing, recording and monitoring domestic waste water treatment systems in the shire with a focus on data collection and management.
- **State Environment Protection Policy (Waters)** – Establishes the framework for protection and management of water quality in Victoria and sets out roles and responsibilities, including for storm water management by local councils.
- **Urban Stormwater - Best Practice Environmental Management Guidelines (BPEM)** – These guidelines were prepared by the CSIRO in 1999 and set out the standards required to meet the policy objectives of Clause 53.18 (Storm water management in urban areas) of all Victorian Planning Schemes. The guideline establishes best practice as an 80% reduction in suspended solids, a 45% reduction in phosphorus and nitrogen and a 70% reduction in litter across a typical year.

Regional Projects

Integrated Water Management (IWM)

In late 2017 the Victorian Government established a series of Integrated Water Management (IWM) Forums for catchments across the state to facilitate identification and coordination of water security and water quality projects. Council participated in the Werribee, Maribyrnong and Coliban IWM Forums.

The *Southern Macedon Ranges IWM Plan* was produced in 2020 as an outcome of the Maribyrnong IWM Forum and assessed a range of water management projects for Lancefield, Romsey, Riddells Creek and Gisborne. The Plan recommends investigating a series of storm water harvesting, storage, treatment and re-use projects for these towns as well as development of policies and guidelines to achieve enhanced storm water targets for new development. Most projects identified in the plan are large scale and complex, requiring commitment from multiple water authorities and state government departments.

Healthy Coliban Catchment

This is a long term project being delivered as a partnership between Coliban Water and the North Central Catchment Management Authority. The project involves investing in waterway management initiatives such as stock exclusion fencing, off-stream watering, weed management and revegetation in the Upper Coliban Catchment in order to protect the quality of water entering the region's drinking water reservoirs. The project contributes to implementation of the *Upper Coliban Integrated Catchment Management Plan*.

Environmental Significance Overlay 4 Update

As a part of the implementation of the *Upper Coliban Integrated Catchment Management Plan*, Coliban Water have initiated a Planning Scheme Amendment to update Environmental Significance Overlay 4 (Special Water Supply Catchment) within the Macedon Ranges Planning Scheme. The updated overlay seeks to establish clear and targeted permit requirements and decision guidelines for works within 30 meters of a waterway with the aim of contributing to protection of the region's drinking water.

What we have achieved to date

- **Waterway planning** - Completion of management plans for Council managed waterways in the Port Philip and Westernport Catchment.
- **Restoration works** - Commencement of on-ground restoration works along Romsey Five Mile Creek and Jacksons Creek in collaboration with Melbourne Water which will be extended in 2021/22 through Melbourne Water's capital works program.
- **Water efficiency** - Use of recycled water at most Council managed sports grounds.
- **Water Sensitive Urban Design** – Assessment of existing water sensitive urban design assets such as sediment basins and rain gardens for their effectiveness and investigation into storm water treatment options along Romsey Five Mile Creek.
- **Domestic Waste Water Management** – Collection of location data for existing domestic waste water management systems in the shire and continued assessment of proposed systems.

Emerging priorities

- **Reducing potable water** consumption from Council operations.
- Addressing existing underperforming or ineffective **water sensitive urban design** assets, ensuring new water sensitive urban design assets in new subdivisions are designed and installed to best practice and identifying opportunities for improved storm water treatment.

- Undertaking **waterway restoration works** that implement Council's existing waterway restoration plans.
- Preparing **restoration plans for waterways** that lack existing management plans such as for Woodend Five Mile Creek and the Campaspe River in Kyneton.
- Conducting **proactive monitoring of domestic waste water management systems** in the shire to ensure they are functioning correctly.
- Reducing the impact of **stock on the health of waterways** and the region's drinking water supplies.

Water objectives

1. To minimise consumption of potable water from Council operations.
2. To improve the quality of water entering local waterways and water storages.
3. To work towards achieving natural flow regimes in local waterways.
4. To minimise erosion of natural waterways and enhance their habitat, landscape and recreation values.

Water policy statements

- Council will seek to manage its water resources in a manner consistent with the five principles for water-wise cities.
- Council recognises the role Council managed waterway reserves play in contributing to catchment health and biodiversity and will seek to implement restoration works in collaboration with other agencies and stakeholders.

Water actions

Legend

Internal	Can be resourced with existing internal staff and operational funds
\$	< \$50,000
\$\$	\$50,000 - \$100,000
\$\$\$	\$100,000+

Very high	Commence within 12 months
High	Commence within 2 years
Medium	Commence within 4 years
Low	Commence within 5 years

#	Action	Priority	Resources	Lead Unit
W1	Prepare a Water Efficiency Plan for Council operations that identifies priority actions to reduce the organisation's potable water consumption.	High	Internal	Environment Unit
W2	Prepare waterway restoration plans for Woodend Five Mile Creek and the Campaspe River in Kyneton.	High	\$	Environment Unit
W3	Implement existing waterway restoration plans through on-ground environmental works .	Very high	Internal	Environment Unit
W4	Enhance Council's internal skills and knowledge about the design, construction and maintenance of water sensitive urban design assets.	Very high	\$	Engineering and Resource Recovery Department
W5	Maintain and upgrade existing water sensitive urban design assets to ensure they are functioning as intended.	Very high	\$\$	Engineering and Resource Recovery Department
W6	Ensure water sensitive urban design assets planned as a part of future subdivisions are designed and constructed to maximise storm water treatment and, where appropriate, beneficial reuse. Review Council's policies and engineering standards as needed.	Very high / As needed	Internal	Engineering and Resource Recovery Department
W7	Develop a Storm Water Management Strategy that establishes a prioritised program of new water sensitive urban design treatments aimed at improving the quality of storm water entering waterways, returning waterway flows to predevelopment regimes and identifies opportunities for beneficial reuse - e.g. for watering street trees and open space.	High	\$\$	Engineering and Resource Recovery Department.

#	Action	Priority	Resources	Lead Unit
W8	Continue to work with other water authorities to develop and implement Integrated Water Management Plans for the shire.	High / As needed	Internal	Engineering and Resource Recovery Department.
W9	Continue to implement Council's Domestic Waste Water Management Plan with the aspiration to conduct proactive monitoring focusing on higher risk sites and domestic waste water systems.	High	\$\$ for proactive monitoring	Environmental Health

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Water indicators

#	Indicator	Measure	Unit
Water indicator 1	Water consumption from Council operations.	Consumption of potable water	Kilolitres
		Consumption of recycled water	Kilolitres
Water indicator 2	Extent of waterway restoration works conducted.	Weed control	Ha high threat weeds treated
		Revegetation	Km revegetation / # plants
Water indicator 3	Waterway quality in local creeks and rivers.	Water quality for the Upper Maribyrnong catchment	Water Quality Index measured on Deep Creek at Kennedy's Lane, Romsey - published by Melbourne Water and the EPA
		Storm water quality	TBC
		Water quality for waterways in the North Central catchment	TBC

Theme 4: Waste

Background

Council plays an important role in supporting the community to reduce waste and increase the reuse and recovery of resources. This includes collecting kerbside waste from residences and some businesses, operating the shire's three transfer stations and educating the community about how to minimise waste transferred to landfill. Council is also responsible for minimising waste to landfill from its own operations.

There have been several changes in the waste industry and community attitudes since preparation of the original *Environment Strategy* in 2016. These include:

- Ban on recycling exports to China
- Ban on e-waste in landfill
- Closure of major Victorian recycling facilities
- Increasing landfill costs
- Changes to state and federal waste policies
- State government plans to introduce a container deposit scheme in 2023
- Increasing community concern about the impact of litter and especially plastics on the environment.

In response to these changes at the industry and community level, Council reviewed its existing waste strategy and prepared the draft *Waste and Resource Recover Strategy 2020-25*.

An overview of regional projects and networks, including the work of the Loddon Mallee Waste and Resource Recovery Group and Sustainability Victoria is provided in the *Waste and Resource Recover Strategy 2020-25*.

Legislative and policy context

- **National Waste Policy: Less Waste, More Resources (2018)** – Establishes a framework for collective action by businesses, governments, communities and individuals until 2030.
- **Recycling Victoria: a new economy** – Sets out the Victorian Government's policy and 10-year action plan to transform the recycling sector including implementation of the four-bin collection service across the state, implementation of a container deposit scheme by 2023, investment in infrastructure and regulation of the waste industry.
- **State-wide Waste and Resource Recovery Infrastructure Plan** - Establishes Victoria's roadmap to guide planning and investment in waste and resource recovery infrastructure to 2040.

What we have achieved to date

- Completion of an updated *Waste and Resource Recovery Strategy 2020-25*.
- Implementation of a four bin kerb side waste collection system across the shire.
- Fabrication of a Zero Waste Trailer in collaboration with the Macedon Ranges Sustainability Group which will be available for events.

- Establishment of a “tip shop” at the transfer station in Kyneton.
- Delivery of waste education campaigns and events.
- Completion of a *Towards Zero Single-Use Plastics Study and Action Plan*.
- Creation of the Macedon Ranges Shire Waste App that helps residents keep track of bin collection days and sort their waste correctly

Emerging priorities

- Reducing waste to landfill from **Council operations**.
- **Waste education** across the residential and business community focusing on waste minimisation for all waste streams of waste
- Reducing use of **single use plastics** across the organisation and at events and facilitating recycling of soft plastics.
- Supporting the circular economy by investigating **local processing and re-use options** for different waste streams, especially organics and glass.
- Reducing **litter** and illegal litter dumping within the shire.
- Reducing waste to landfill from **public places**.
- Facilitating waste wise and **sustainable procurement**.
- Exploring use of recycled and low carbon materials in **road and footpath construction**.
- Expanding “tip shop” operations at transfer stations.

Waste objectives

The *Waste and Resource Recovery Strategy 2021* includes the following objectives:

- Deliver affordable, efficient, sustainable and coordinated waste and resource recovery systems and services.
- Inform and empower the community to reduce waste, increase reuse and maximise resource recovery.
- Protect the amenity of townships and landscapes for current and future generations through clean and litter-free spaces.
- Contribute towards a circular economy through sustainable procurement and local solutions for reuse, recovery and end markets for materials.

Waste policy statements

The draft *Waste and Resource Recovery Strategy 2020-25* includes the following principles to guide its implementation:

- Align with state and national policy by investigating local options for processing and reusing our resources and contribute towards the circular economy shift. E.g. local processing of organics and reuse of glass in local civil infrastructure projects.
- Build community’s trust in recycling through transparency regarding end destinations of waste streams and recyclability of individual items.
- Provide education to engage, inform and empower the community to minimise waste and increase resource recovery.
- Continue the phase-out of non-recyclable packaging and other items including single-use plastics and so-called “biodegradable” plastics.
- Waste is a shared responsibility – greater community accountability for responsible waste management.

- Consider waste reduction in all Council activities (procurement, contracts, events, construction, operations, etc).

Waste actions

Legend

Internal	Can be resourced with existing internal staff and operational funds
\$	< \$50,000
\$\$	\$50,000 - \$100,000
\$\$\$	\$100,000+

Very high	Commence within 12 months
High	Commence within 2 years
Medium	Commence within 4 years
Low	Commence within 5 years

#	Action	Priority	Resources	Lead Unit
WST1	Progressively implement the Waste and Resource Recovery Strategy 2020-25	Very high	As set out in the Strategy	Waste and Resource Recovery Unit
WST2	Implement Council's Towards Zero Single-Use Plastics Action Plan	Very high	As set out in the Action Plan	Waste and Resource Recovery Unit
WST3	Develop a Waste Education and Behaviour Change Strategy	High	Internal	Waste and Resource Recovery Unit
WST4	Develop a Sustainable Procurement Strategy and Guidelines that facilitates purchase of products and materials that are durable, re-usable, contain recyclable content and are produced through low emissions technologies. Include guidance for procurement of single use plastics, local procurement and specifications for contractors and consultants.	High	Internal	Environment Unit
WST5	Trial the use of recycled and low emissions materials for roads and footpaths.	Medium	\$\$	Civil Infrastructure Construction Unit
WST6	Facilitate best practice waste management in public places and events.	Very high	Internal	Waste and Resource Recovery Unit
WST7	Develop a Littering and Illegal Dumping Management Plan	High	Internal	Waste and Resource Recovery Unit

Waste indicators

#	Indicator	Measure	Unit
Waste Indicator 1	Waste diverted from landfill in the community	Waste received at Transfer Stations.	Tonnes / cubic meters of different waste streams
		Sales at Kyneton Tip Shop	# different items \$ collected
		Waste from kerb side collections (total and per household)	Tonnes / kg for different waste streams
		Waste from public places and events	Tonnes / kg for different waste streams
Waste Indicator 2	Resource efficiency within Council operations	Waste collected from Council facilities	Tonnes / kg of different waste streams
		Paper use	Reams of paper purchased
		Single-use plastics use	Volume / kg of single use plastics from Council facilities
Waste Indicator 3	Community engagement with waste education	Number of waste education events hosted a by Council	# events
		Use of the Zero Waste Trailer	# Zero Waste Trailer bookings

Community engagement

Context

Macedon Ranges Community Engagement Policy

Council's *Community Engagement Policy* outlines Council's commitment to engage with the shire's community when there is a decision to be made by Council, consistent with the requirements of the *Local Government Act 2020*. The policy commits Council to preparing community engagement and communications plans, running consultation for at least 28 days, ensuring consultation is accessible and reporting consultation outcomes back to the community.

Stakeholder engagement

The following engagement framework relates to Council's work with community groups and community members. In addition to engaging with community, Council also aims to work collaboratively with other agencies, state government departments and local councils to achieved shared objectives.

Existing Community Action

There are a number of community groups and organisations who operate within the shire and are working to progress environmental outcomes. These include:

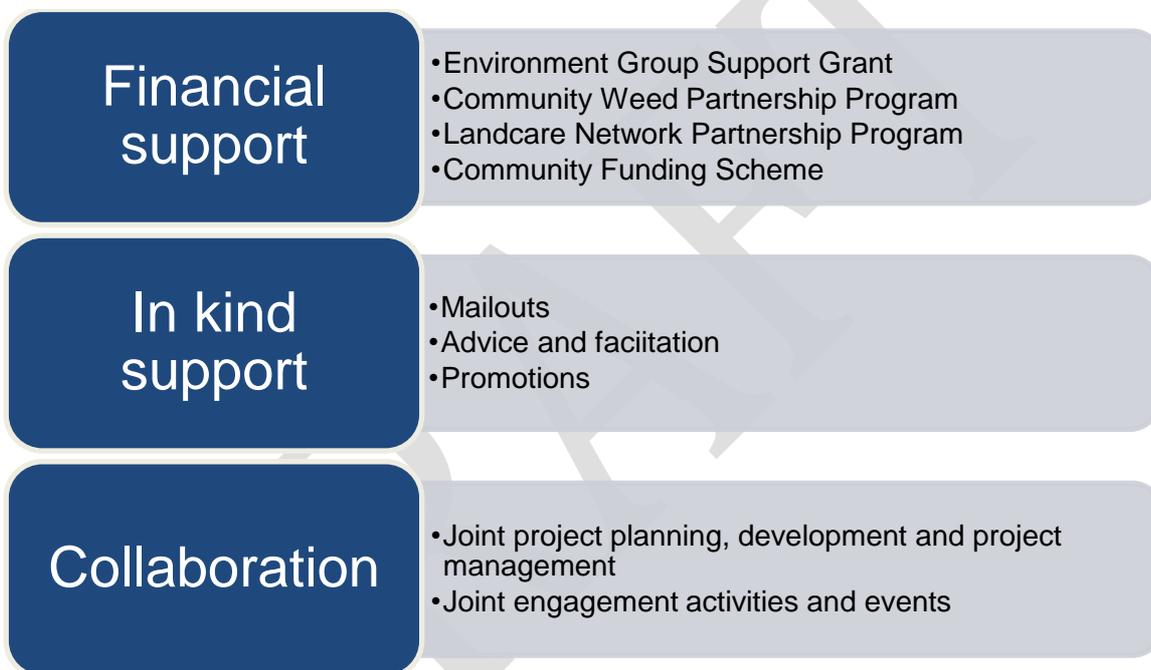
- **Macedon Ranges Sustainability Group** – A members based not-for-profit organisation that promotes sustainable living. The group supports several action groups who progress action on topics such as transport, waste and recycling, renewable energy, sustainable homes and local food production, or for specific towns, such as Sustainable Malmsbury.
- **Upper Campaspe Landcare Network** – A network of 19 Landcare and Friends groups who operate north of the divide. The Network has delivered a range of wildlife survey projects and educational programs in the past and is currently focusing on their Pollinators Project which seeks to better understand the region's pollinating species and enhance pollinator habitat through revegetation.
- **Upper Deep Creek Landcare Network** – A network of three Landcare groups who operate south of the divide along Deep Creek.
- **Jackson Creek Econetwork** – A network of twelve Landcare and Friends Groups who operate south of the divide, including nine groups within the Macedon Ranges Shire.
- **Landcare and Friends Groups** – There are approximately 18 Landcare groups and ten Friends groups operating in the shire who organise community engagement and on-ground works aimed at enhancing sustainable land management and biodiversity values in the shire.

- **Biolinks Alliance** – An alliance of 18 member Landcare networks, conservation management networks and environment groups extending from the Grampians across to the Australian Alps and from the Dividing Ranges to the Murray River. The Alliance plays a networking, capacity building, advocacy and on-ground role in the region. In the Macedon Ranges the Alliance is actively working with the local community on the Greenhill to Blackhill Biolink and the Gildeways project.

Council seeks to actively work in partnership with these groups and networks to achieve common goals as outlined in the below “community partnership framework”.

Community partnership framework

Council provides various forms of financial and in kind support to community groups. Council also seeks to actively collaborate with groups on joint projects and initiatives that achieve common goals.



Community engagement framework

Through engagement, Council seeks to support greater community awareness of environmental values, issues and risks, facilitate community involvement in environmental activities that connect them to nature, and to ultimately motivate action that furthers protection and enhancement of the environment. This can be summarised as follows:



Engagement goals

Proposed actions

Increase environmental literacy and awareness of environmental risks

- Regular Environment eNewsletters
- Regular social media posts
- Articles in the ShireLife, print media and community newsletters
- Brochures, flyers and booklets
- Information sessions, webinars and workshops
- Individual advisory services - e.g. Farm Advisory Service, Sustainable Design Advisory Service

Provide opportunities to connect with nature and learn by doing

- Citizen science activities
- Walks and talks
- Videos and podcasts
- Multi-media and arts projects
- Field days
- School and kindergarten incursions and excursions

Collaborate with community groups to achieve common goals

- Collaborate on works planning for conservation reserves
- Collaborate on delivery of workshops and events
- Collaborate on biolinks planning and implementation
- Collaborate on biodiversity, land management and climate change projects
- Provide financial and in kind support
- Stay in touch with community groups via regular meetings

Build capacity, opportunity and motivation for individual and collective action

- Facilitate biolinks plans
- Facilitate local community climate change action plans
- Support initiatives that build community leadership
- Provide incentives for action (e.g. grants, loaning equipment etc)
- Support peer to peer learning through discussion groups and community forums

Priority engagement topics

The following topics are priorities for Council environmental engagement program:

1. Climate emergency
2. Biodiversity in the shire and the biodiversity crisis
3. Waste minimisation
4. Regenerative agriculture
5. Roadside conservation values
6. Illegal activities – e.g. native vegetation removal, firewood collection, 4WD and motorbikes in conservation reserves, encroachment into conservation reserves.
7. Weed management
8. Pest animal management

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Risk management

The Environment Strategy considers the risks Council and community activities may pose to the environment. The principles and actions included in the Strategy seek to eliminate or mitigate harm to air, land, water and groundwater. Mitigating these risks also helps to prevent harm to human health. Part of managing these risks involves ensuring organisational and community compliance with environmental regulations and obligations.

In addition, Council uses a structured approach to monitor, identify, assess and control risks that could impact on the achievement of this strategy. This is achieved through monitoring its risk register and updating this register as needed.

Monitoring and review

Annual reporting

Implementation of the Environment Strategy will be reported on annually through Council's Annual Environment Report. This document will include a report on:

- Outputs – a summary of Council activities which contribute to achieving the strategy's actions.
- Outcomes – a report on the indicators listed in this Strategy.

Five yearly review

The Environment Strategy will be reviewed and updated every five years to ensure the actions listed continue to provide a useful framework for decision making and resource allocation.

In the intervening years the Strategy will not be updated other than to make corrections or administrative changes. This will enable Council to maintain its focus and report accurately on progress towards completing the Strategy's actions.