Regional Circular Economy Plan Loddon Mallee



October 2022



Thank you to all organisations that contributed to the development of the Loddon Mallee Regional Circular Economy Plan.



























































Advanced Manufacturing Growth Centre; APCO; Australian Biofert; Australian Industrial Hemp Alliance Inc; Biomix; Buloke Shire Council; Central Goldfields Shire Council; City of Greater Bendigo; Close the loop; Coliban Water; GDP Industries; Geelong Chamber of Commerce; Loddon Mallee Shire; Loddon Mallee Waste and Resource Recovery Group; Pro-Pac Packaging; RDV; Regina Glass Fibre; Repeat Plastics Australia Pty. Ltd.; SENVIC - Social Enterprise Network Victoria; St Vincent de Paul; Tetra Pak; Van Schaik's Bio Gro Pty. Ltd.; Visy.

This report's photos were taken on Country of the Dja Dja Wurrung People, Taungurung People, Wurundjeri People, Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk Nations and First Peoples of the Millewa-Mallee, being Latji Latji and Ngintait Traditional Owners.

Acknowledgment

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.



Message from the Minister

From waste to value - A regional approach to growing regional Victoria's circular economies

Victoria is transitioning to a circular economy, with government, business and community looking for new ways to reduce waste, recycle and reuse more.

Regional Victoria is integral to tackling this broad and complex issue - just as it is integral to the state's economic success, its rich social and cultural heritage, and its stunning landscapes and ecosystems.

The Regional Circular Economy Plans (RCEPs) have been developed by regional Victorians, for regional Victorians, with over 125 organisations contributing to their development.

Each region is unique, with its own strengths to build from, and challenges to consider. The plans are statements of intent for where each region would like their circular economy to be by 2030, and the path to achieving this.

Moving to a circular economy opens exciting opportunities for each region to strengthen their local economies, develop new markets, attract investment, and create jobs – supporting their communities and protecting their environments into the future. The plans have been developed as an accessible resource for all to use, to support collaboration, strategic planning, and investment. I look forward to the plans being used to progress circular economy outcomes across regional Victoria.

The Victorian Government is investing over \$515 million to transform Victoria's waste and recycling industry. The RCEPs support the delivery of the \$380 million Recycling Victoria: A new economy plan – Victoria's 10-year circular economy plan to reduce waste, increase recycling, and creating more value from our resources. This will help divert 80 per cent of all material away from landfill, create nearly 4,000 new jobs and boost Victoria's economy by up to \$6.7 billion by 2030.





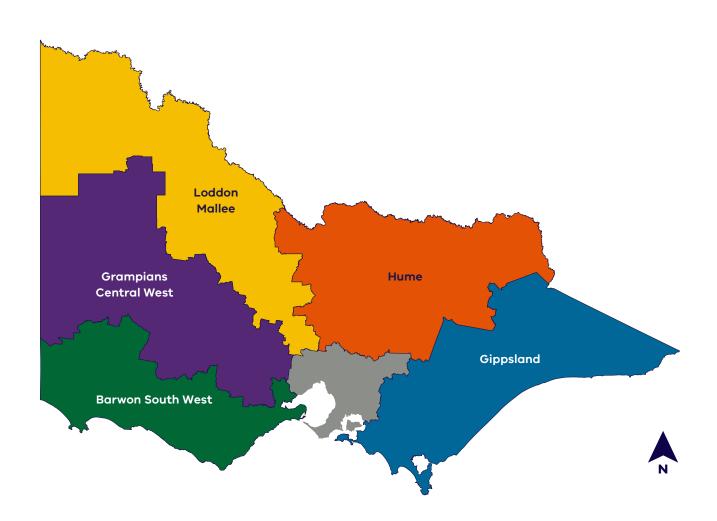
The Hon. Lily D'Ambrosio MP

Minister for Energy

Minister for Environment and Climate Action

Minister for Solar Homes





The five regions of Victoria that have developed Regional Circular Economy Plans

Circular economy plans for regional Victoria

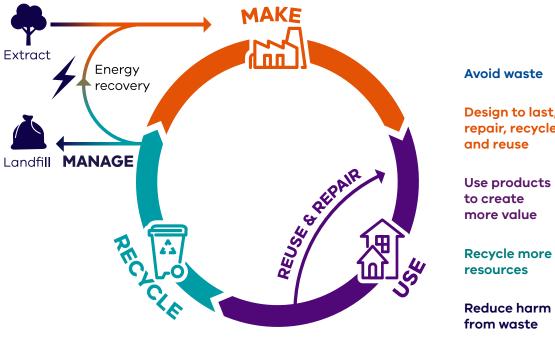
The Loddon Mallee Regional Circular Economy Plan (RCEP) is one of five RCEPs that have been developed for Regional Victoria. RCEPs have also been created for Barwon South West, Hume, Gippsland, and Grampians Central West.

Each RCEP is the result of broad consultation, engagement and collaboration with regional representatives who all have important roles to play in developing the region's circular economy. The plans represent a different approach to planning and are the first of their kind.

For a summary of the engagement program, refer to the RCEPs Engagement Program Summary Report.

The RCEPs support the delivery of Victorian Government's circular economy policy, Recycling Victoria: a new economy, specifically the goals to 'design to last, repair and recycle'; 'use products to create more value'; and 'recycle more resources'.

Resource flows in a circular economy



Design to last, repair, recycle

Loddon Mallee's circular economy plan

This document sets out Loddon Mallee's circular economy aspirations to 2030, and the priorities to help achieve these aspirations. It also provides an insight into the region's strengths and challenges, and how to support the development of a sustainable and thriving circular economy in the Loddon Mallee region.

This is a strategic document, not a plan with set actions for individual participants to report on.

The document identifies the collective aspirations of representatives from across the region. The aspirations and priorities are to be considered by each reader within their own contexts and spheres of influence as they transition to a regional circular economy.

A plan by Loddon Mallee, for Loddon Mallee

Representatives from 52 organisations contributed to the Loddon Mallee RCEP, including local government, the waste and resource recovery industry, businesses and business associations, manufacturers, social enterprise, research and education institutions, and the Victorian Government.

Representatives participated in robust discussions and workshops facilitated by the Victorian Government designed to encourage strategic thinking about their region, where they are now, where they want to be by 2030, and how they can work together to get there.

For further information on the engagement program, refer to the RCEPs Engagement Program Summary Report. The Report has made ten recommendations, which have been incorporated into this plan where possible, or are noted for future consideration.

Loddon Mallee's aspirations for 2030

Together, representatives developed five circular economy aspirations for 2030, to guide the development of the region's circular economy.

Working together to achieve our aspirations

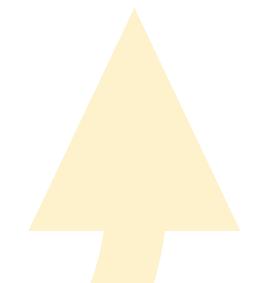
Building from local understanding of the region's strengths and challenges, region specific priorities have been identified to guide the development of Loddon Mallee's circular economy.

The priorities cover a range of key themes including improving infrastructure, developing end use markets, improving collaboration and communication, supporting behaviour change, advocating for legislative reform, undertaking research and development, and providing opportunities for reskilling and job training.

How to use this Plan

This plan is to be used as a resource for the Loddon Mallee region to work together toward creating a sustainable and thriving circular economy.

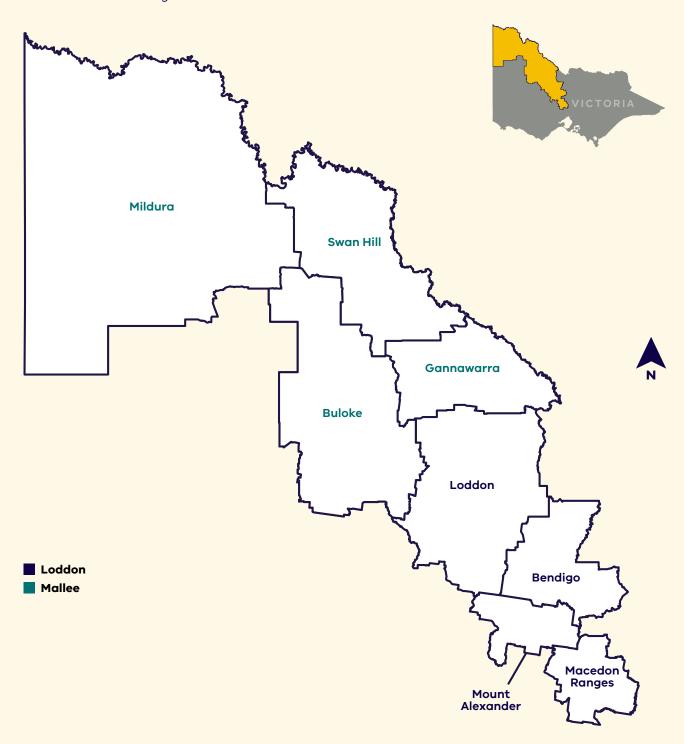
As a resource for all, the Plan has a broad number of potential uses including, but not limited to, regional planning, infrastructure planning, funding program design, business strategy development, community education program design, and product design.





Loddon Mallee region

Map of Local Government Areas (LGAs) in the Loddon Mallee region



Aspirations and priorities

Loddon Mallee's five circular economy aspirations to 2030 are detailed below, along with six important changes, or 'key enablers', that have been identified to help realise these aspirations.

Aspirations to 2030

Resource recovery is the primary focus, not waste

New entrants and existing resource recovery managers have transitioned from a waste to resource recovery focus.

Product stewardship is paramount

Products and materials are created within Loddon Mallee with an understanding of their lifecycle. Locally produced items are easy to repurpose or recycle, and retailers and manufacturers are accountable for the full product life.

Better use of plastic to support the circular economy

In the Loddon Mallee region, we actively avoid the use of plastic. Where it is used, we choose recycled plastics, or easily recycled materials to keep plastic materials in the recycling loop.

Consumers are supported to engage in the circular economy

In the Loddon Mallee region, consumers are equitably supported to avoid use where possible and maximise the reuse and recycling of products.

Loddon Mallee is recognised a leader in the circular economy in Victoria

We have a proud reputation for the design, manufacture and use of recycled materials and products for the construction, agricultural and health sectors.

Key enablers

Important changes to strengthen our circular economy



Improved infrastructure

16%* of priorities

O S J

Developing end use markets

> 19%* of priorities



Improved collaboration and communication

7%* of priorities



Behaviour change (industry and consumers)

19%* of priorities



Legislation, regulations, or standards reform

19%*
of priorities

Other key changes including research and development, reskilling and job training

19%*

of priorities

^{*} Percentage rounded to nearest whole percentage.

Priorities to achieve our aspirations

Loddon Mallee has developed 31 priorities to achieve their circular economy aspirations to 2030. Each priority has been identified as contributing to one or more aspiration and has been grouped by Key Enablers. Many of the priorities align with current Victorian Government policy, whilst others will be for future consideration.

Key **Aspirations** Alignment with **Victorian Policy** 1 Resource recovery is 3 Better use of plastic 5 Loddon Mallee is the primary focus, to support the recognised a leader **Aligns** not waste circular economy in the circular economy in Victoria 2 Product 4 Consumers are For future stewardship supported to engage consideration is paramount in the circular economy

Improved infrastructure				
Long-term investment strategy that allows business, councils, researchers, and resource recovery operators to invest with confidence in the next 10 years, with a periodic review.	0		6	1
Planned investment in processing and local feedstock storage facilities to take advantage of manufacturing potential and reinvest industry collected levies back into regional need.	0	3	6	1
Invest in initiatives to reduce the cost of travel , e.g., hydrogen powered trucks, cost sharing, moving freight onto rail, electrical vehicle, upgrade roads (the circular economy intent of this was questioned).	0		6	1
Invest in collection, reprocessing, and manufacturing technologies to improve access to collection services, and sorting and cleaning of commercial, commingled plastics, polystyrene, household soft plastics and agricultural plastics throughout the region.	0	8	3 5	1
Incentivise set up costs through a scheme to recoup upfront capital costs through solar energy savings that are not dependent on transmission network upgrades.	0			\Rightarrow
Developing end use markets				
Work with local research and educational providers and industry to map current and predicted material availability and provide a brokerage service to businesses to stimulate demand for these materials.	0	3	5	1

Build-in pricing that factors in the whole of product lifecycle cost to incentivise the use of recycled products and materials , when taking a longer-term view.	•	9 €			\Rightarrow
Conduct research between educators, manufacturers, and industry to understand the waste profile and potential uses for product.	0 6	9 €		6	1
Attract and support plastic manufacturers that use recycled materials (e.g. Plastech) to establish in the region.		•		6	\Rightarrow
Establish partnerships between councils and industry to support trials of new recycled products.		•	9	6	1
Invest in pilot projects within regional centres to demonstrate local circular economy solutions and to promote the quality and range of recycled materials and product use.	•	9 €		5	1
Improved collaboration and communication					
Facilitate conversations between commercial and council operations to determine the drivers and priorities for waste management and end uses.	0	•			1
Share and promote the success of pilots and trials to encourage more uptake and innovation.	•	9 €		6	1
Behaviour change (industry and consumers)					
Engage with residents about sorting of plastics and polymer types and recycling symbols to reduce contamination and increase collection.		€		6	1
Deliver ongoing social marketing and behavioural campaigns involving councils, government agencies and industry associations to communicate the value of circular economy and show communities how to be a driving force for change, provide the public with a better understanding of the value and lifespan of all resources.	•	9 €	0	6	1
Establish a program, coordinated between councils and other government agencies, to encourage community to purchase good quality long term products or secondhand items.	•	9 €	0	6	1
Establish an education and training program for consumers and business to support a transition to a circular economy to combat waste and climate change challenges and market development.	•	3	4	6	
Promote Sustainability Victoria's Buy Recycled directory for councils to encourage the use of recycled materials.		•	0	6	1
Support retailers and manufacturers to implement initiatives that encourage recycling, reuse, and repair of consumer products (including funding take back programs and regulation).	•	9 €	9	6	1
Legislation, regulations, or standards reform					
Advocate for a change to government regulations to influence product design and manufacturing to encourage the avoidance, recycling and reuse of products	•	9 €		6	1
and materials.					

Legislation, regulations, or standards reform continued			
Advocate for legislative change and support agriculture, manufacturers, and industry to avoid (single use) plastics, and where required preference the use of recycled plastics materials (e.g., ban plastic fruit labels, colour coding plant and plastic based plastics for sorting and separation and single plastics use).	3	6	1
Introduce standards and set targets on the use of recycled materials and products within local government infrastructure contracts and construction industries.	3	5	1
Invest in new circular economy alternatives for the recycling and treatment of contaminated soil and other hazardous waste that will help address historical land use issues in the region i.e. contaminants such as arsenic, lead and asbestos.		4 5	\Rightarrow
Adapt grant funding rules to be more flexible , including grants to support projects that have already commenced.	0		1
Other key changes including research and development, reskilling, and job training			
Undertake research and trials into innovative recovery solutions for commercial outcomes, understanding the market opportunities, capabilities to support businesses to relocate or establish in the region.	000	6	1
Undertake research with industry and industry associations to determine the factors that encourage new market entrants to establish in the region , particularly operators aligned to our environmental values (e.g., availability of staff and support services).	0	6	<u>1</u>
Undertake coordinated research and development to identify alternative materials that retain higher value during the material life cycle and identify end use markets to increase demand for recycled plastic materials (e.g., showcase products and provide training in use).	000	6	1
Partner with industry and education providers to create training pathways, and short courses to invite innovation and interest from outside the region.	0	5	1
Explore opportunities to connect with Asia-Pacific countries to develop waste solutions across the region.	0	6	\Rightarrow
Deliver programs that are contextualised to the SEIFA index and characteristics of the region (e.g., look at best practice examples across energy and water sectors to apply to the waste industry).		4 5	\Rightarrow



Loddon Mallee today



292,721

Current Population (2020)



\$17 billion

Gross Regional Product (2020)²



27,391 tonnes

Kerbside Recycling Collected (2019-20)3

Loddon



200,818Current Population (2020)¹



\$11.7 billion

Gross Regional Product (2020)²



Mallee



91,903Current Population (2020)¹



\$5.3 billion

Gross Regional Product (2020)²



8,600 tonnesKerbside Recycling Collected (2019-20)³

¹ Australian Bureau of Statistics (<u>abs.gov.au</u>)

² Regional Economic Development Strategies (REDS) – Regional Development Victoria (<u>rdv.vic.gov.au</u>)

³ Victorian Local Government Area Survey - Sustainability Victoria (<u>sustainability.vic.gov.au</u>)

Loddon Mallee region

Loddon Mallee's circular economy aspirations and priorities were developed with a local understanding of the region's strengths and challenges. The region's representatives considered 'where we are today' as a region, before projecting forward to 'where we want to be' in 2030 and beyond.

The process identified key strengths within the Loddon Mallee region – unique characteristics that provide the region with a base from which to consider the circular economy priorities and work towards their aspirations for 2030.

Understanding the region's size and diversity, it has been split into two major sub-regions: Loddon and Mallee.

The region covers a large geographical area, including the sub-regions of Loddon and Mallee.

The region has a broad mix of industries including horticulture, dairying, broad acre cropping, mineral sand and rare earth mining, renewable energy, and tourism sectors.

Strong existing transport network links the region to other regions in Victoria, as well as New South Wales and South Australia, allowing for the movement of recycled materials to processing facilities and end markets.

The region is supporting circular economy outcomes, encouraging innovation through investment and trials, education and training opportunities and local circular economy projects.

For in-depth economic analysis of the region, refer to <u>Victoria's Regional Economic Development</u> <u>Strategies (REDS)</u>.

Strengths:

- Strong transport network links between Victoria, New South Wales and South Australia to move recyclables to processing facilities and products to end markets, predominantly in areas closer to peri-urban Melbourne.
- Innovation investment and trials are already underway to increase recycling rates and manufacturing's use of recycled content.
- Reducing complexity in recycling organics and access to appropriately cited land, to make it more attractive for farmer involvement.
- Education and training existing local educators providing training in skills required by new processing and manufacturing industries, less so in rural and remote areas.
- Local circular economy projects to draw upon and promote, such as local biochar production where wood waste is converted for use in agriculture.
- Population population growth will ensure the availability of recyclable materials and demand for products manufactured with recycled content.
- Natural assets sufficient land availability to co-locate sorting, processing, and manufacturing precinct, with enough of a buffer from residential growth.
- **Economic** the price parity of recycled material use is becoming more attractive.

Loddon Mallee in 2030



329,003

Projected Population (2031)4



12% increase

Projected percentage change (2021 to 2031)

Loddon



232,392Projected Population (2031)⁴



16% increase
Projected percentage change
(2021 to 2031)

Mallee



96,611 Projected Population (2031)⁴



5% increase
Projected percentage change
(2021 to 2031)

⁴ Victoria in Future (planning.vic.gov.au)

In developing Loddon Mallee's circular economy aspirations for 2030, as well as studying the region's strengths, the region's challenges were also considered. The region's circular economy priorities were developed to mitigate, or in consideration of, these challenges.

Loddon Mallee covers a large geographic area, where circular economy opportunities vary greatly between rural and peri-urban areas. Cost of accessing local processing facilities is, in some instances, greater than transporting to larger facilities in Melbourne. Whilst lack of resources can be a barrier for some councils to be able to progress circular economy outcomes.

By 2030, the Loddon Mallee region is projected to be home to 329,003 people, increasing by 12 per cent from 2021 to 2031. This projected population increase is weighted heavily to the Loddon sub region with a 16 per cent increase, whilst the Mallee is projected to increase 5 per cent.

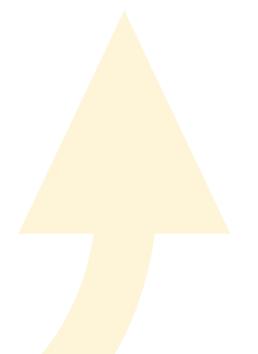
Population increase in certain areas is expected to lead to higher rates of waste and recyclable materials being generated, with increased demand for sorting, processing and storage infrastructure, or pressure on regional roads if this recyclable material is transported outside the region.

Where population is not expected to increase, volumes may continue to not require household collection, presenting a challenge for local councils and industry aiming to divert materials from landfill.

For in-depth economic analysis of the region, refer to <u>Victoria's Regional Economic Development</u> Strategies (REDS).

Challenges:

- Large geographic area where circular economy opportunities vary greatly between rural and peri-urban areas.
- Transports networks, while a strength in some regions remain a challenge in rural and remote areas.
- Traditional metrics to evaluate investment business cases for waste and recycling infrastructure don't consider the other social, environmental, and economic benefits.
- Councils don't have the resources, capability, and capacity to approach resource recovery through a circular economy lens.
- Current council procurement preferences discourage use of recycled materials and products.
- Grant funding is insufficient and/or not aligned to council budget timeframes to be useful for many recycling projects and trials.
- Cost of accessing local processing facilities is, in some instances, greater than transporting to larger facilities in Melbourne.
- Low economies of scale of some waste streams and the high relative costs of small processing facilities reduce the cost effectiveness of recycling.
- Recycling costs are not factored into projects, products, and materials and this disproportional cost profile discourages investment and uptake.
- Limited demand and end markets for the high volume of recyclable material.
- Tension between avoidance and waste generation as a resource. More clarity needed on future avoidance plans to give commercial operators confidence.
- Seasonality of some significant waste streams affects feedstock supply.



Everyone has a role to play in a circular economy

A circular economy is a collective responsibility requiring shared involvement, commitment, and action.

The table below highlights the various stakeholders involved in Loddon Mallee's circular economy and the important role/s that can be played by each.



Local Councils in the region



Researchers and educators



Commercial and industrial operators and industry associations



Water Industry



Businesses and business associations



Social enterprises and incorporated committees



Residential community/ consumers



Waste and resource recovery industry



Victorian Government (departments, agencies)



Federal Government

Introduce legislation, policy, and standards to support the circular economy system

Collaborate, design and develop market ready products, packaging, and systems that eliminate waste and pollution and support natural processes









Undertake research to understand stakeholder needs to support circular economy system







Plan for circular economy infrastructure









Provide funding opportunities to encourage investment in infrastructure, services, and programs







Preference use of reusable or recycled products, products that support natural processes, and recycled materials













Educate households, businesses, and commercial operators









Support and participate in share economy and repurposing services









Collect, sort, and manage recovered material and waste











Participate in material recovery process







Share data and information about collected waste, including material types and volumes









How this plan can be used

The RCEP is to be used as a resource for all in the Loddon Mallee region to work together toward creating a sustainable and thriving economy.

Some potential uses could include:

Local Councils in the region

- As an input into strategic waste management planning.
- To guide future procurement and purchasing
- To inform community education programs.
- To promote collaboration across local government areas, particularly in regional and rural areas where lower material volumes and reuse opportunities benefit from a regionally coordinated approach to be viable.
- To enter collaborative projects with other agencies, private businesses and research institutions.
- As a reference for future waste management community consultation programs and education programs
- To consider alongside the Regional Economic Development Strategies (REDS) for economic opportunities for circular economy in the region.
- To support applications for funding.

Researchers and educators (e.g., university sector, private researchers)

- To inform future areas of research.
- To inform education programs.
- To support applications for funding and proposals for the provision of goods and services.

Commercial and industrial operators and industry associations (e.g., designers, product manufacturers)

- To disseminate information and educate industry and consumers.
- To encourage private investment.
- To support the development of feasibility studies for new industry opportunities.
- To inform future plant expansion and re-use opportunities.
- To support applications for funding and proposals for the provision of goods and services.

Water Industry

- To support applications for funding.
- To support advocacy for regulations or legislation.
- To inform future research, such as between water industry, local government, and the university sector.

Businesses and business associations (businesses operating in the region, or their representative bodies)

- To identify potential end use markets.
- To support business case development.
- To support applications for funding and proposals for the provision of goods and services.

Social enterprises and incorporated committees (not-for-profit organisations)

- To understand the role/s that social enterprises could have in the circular economy and inform strategic planning.
- To inform education programs.
- To support applications for funding and proposals for the provision of goods and services.

Residential community/consumer

- To understand Loddon Mallee's circular economy aspirations and priorities.
- To understand the role/s that individuals could have in the circular economy.
- To support applications for funding

The waste and resource recovery industry (e.g., material recovery facility operators)

- To identify potential waste management investment opportunities.
- To measure region specific information and potential levels of service strategies.
- To support applications for funding and proposals for the provision of goods and services.

Victorian Government

- As an input into policy planning, including the 30-year infrastructure program, the Victorian Recycling Infrastructure Plan (VRIP).
- To inform the design and implementation of funding programs, including the Regional Recycling Fund Round 2.
- As an input into Recycling Victoria's work program for circular economy outcomes in regional Victoria.
- As an input into Sustainability Victoria's work program for circular economy outcomes in regional Victoria.
- To inform education programs, such as through Sustainability Victoria.

Federal Government

- To influence product stewardship across Australia.
- To inform design and implementation of national waste and recycling funding programs.
- To harmonise any future national circular economy legislation.

Where to from here?

The Department of Environment, Land, Water and Planning (DELWP) is the custodian of the RCEPs.

The RCEPs will be used as a valuable resource for the Victorian Government's future circular economy planning.

All readers are encouraged to consider the RCEPs within their own contexts and spheres of influence as they transition to a regional circular economy.

For more information about Victoria's circular economy plans and progress, see vic.gov.au/building-victorias-circular-economy.





 \circledcirc The State of Victoria Department of Environment, Land, Water and Planning 2022.



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