

Driving a Circular Economy in the Goulburn Murray

Understanding the challenges and opportunities



**GOULBURN
BROKEN**
CATCHMENT
MANAGEMENT
AUTHORITY



VICTORIA
State
Government

Acknowledgements

This report was prepared through the project: Driving a Circular Economy in the Goulburn Murray. DEECA funded the Goulburn Broken CMA to lead the project and identify regional priorities, which will help drive industry and community collaborations and build evidence for circular economy opportunities.

The report was prepared by Rod McLennan (Rod McLennan and Associates) and Kate Bell (Goulburn Broken CMA) for the Goulburn Murray region.

It incorporates the voices of individuals representing many stakeholders. People and organisations involved with interviews, a circular economy workshop, and document reviews are listed in this report. Their time and contributions are appreciated.

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The Goulburn Broken CMA acknowledges and respects Traditional Owners and Aboriginal communities and organisations. We recognise the diversity of their cultures and the deep connections they have with Victoria's lands and waters. We value partnerships with them for the health of people and Country. We pay our respects to Elders past and present and acknowledge and recognise the primacy of Traditional Owners' obligations, rights and responsibilities to use and care for their traditional lands and waters.

Complementary documents

This report is supported by three complementary documents prepared during the project that will also be essential resources for subsequent endeavours (listed below). The project was also covered by various media (Appendix 5).

1. Background research

An Excel workbook (accessible only via GB CMA's portal) of live lists with notes on: local activity; activity elsewhere; challenges; opportunities and ideas; references; models and hubs; potential case studies; fund sources; interviewees; and workshop attendees.

2. Workshop report

Intended for invitees and attendees of an April 2023 Circular Economy Workshop. The report captures numerous pertinent thoughts and ideas. This report is available on request.

3. Summary

A two-page summary of this report for a wide audience.

Abbreviations

CMA	Catchment Management Authority
CE	Circular economy
DEECA	Department of Energy, Environment and Climate Action (formerly DELWP)
GB CMA	Goulburn Broken Catchment Management Authority

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Summary

This document reports on an investigation into regional circular economy activity, barriers and opportunities, and what is needed to drive the circular economy in the Goulburn Murray region.

The investigation revealed large levels of activity at a range of scales, significant benefits that would emerge from integrating efforts across the region, and prompted many ideas to be explored.

There is compelling interest and enthusiasm from stakeholders involved in the project and an eagerness to get started on a circular economy journey.

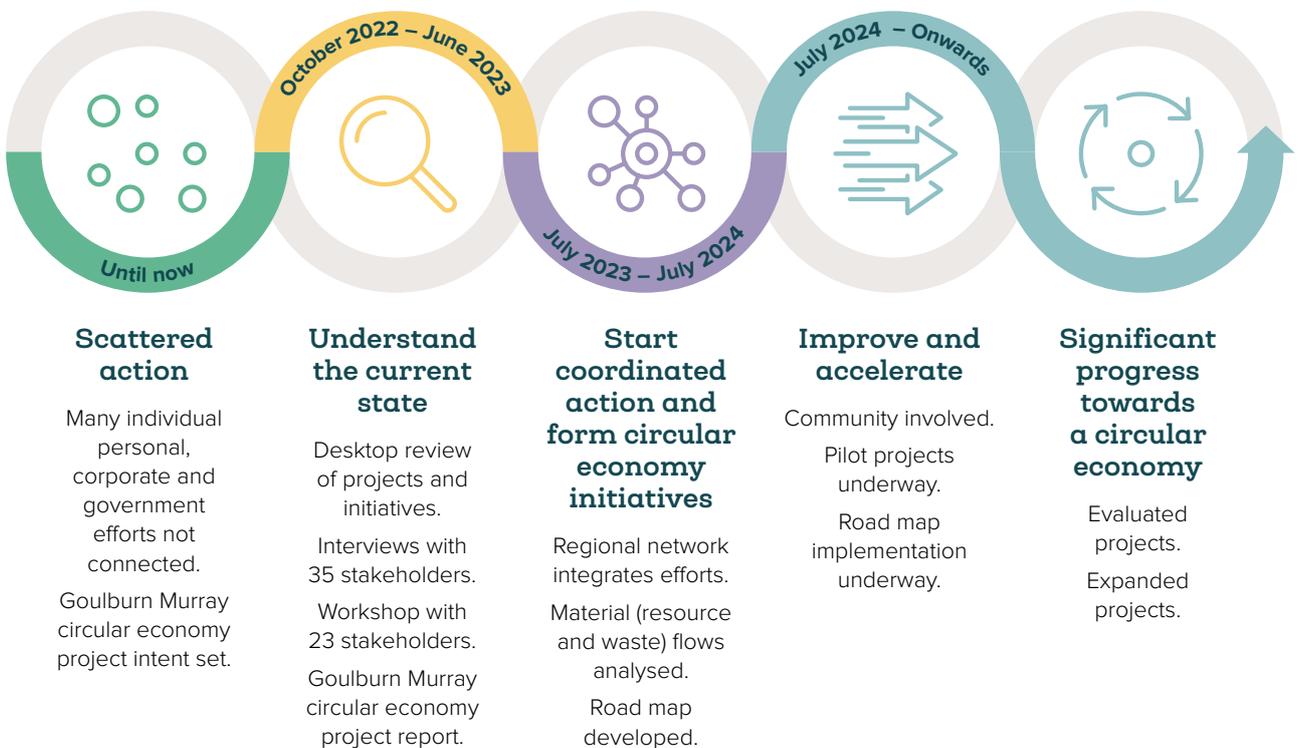
The Goulburn Murray community is well positioned for collaboratively and rapidly growing a circular economy, but resources are needed to drive it, especially to connect industries and the public and private sectors.

Investigation details are available and ready to inform subsequent circular economy efforts.

The critical next steps are to:

- Appoint a senior person within a well-connected organisation to oversee the next phase;
- Develop a supported circular economy network;
- Build community buy-in;
- Analyse material flows, the waste we produce and its potential uses;
- Identify and develop pilot and focus projects; and
- Develop a detailed circular economy roadmap.

Figure 1. Where we are on the circular economy journey



1. What is a circular economy?

“Through design, we can eliminate waste and pollution, circulate products and materials, and regenerate nature, creating an economy that benefits people, business and the natural world.”

(Ellen MacArthur Foundation, 2023)

Figure 2. The circular economy is based on three principles, driven by design:

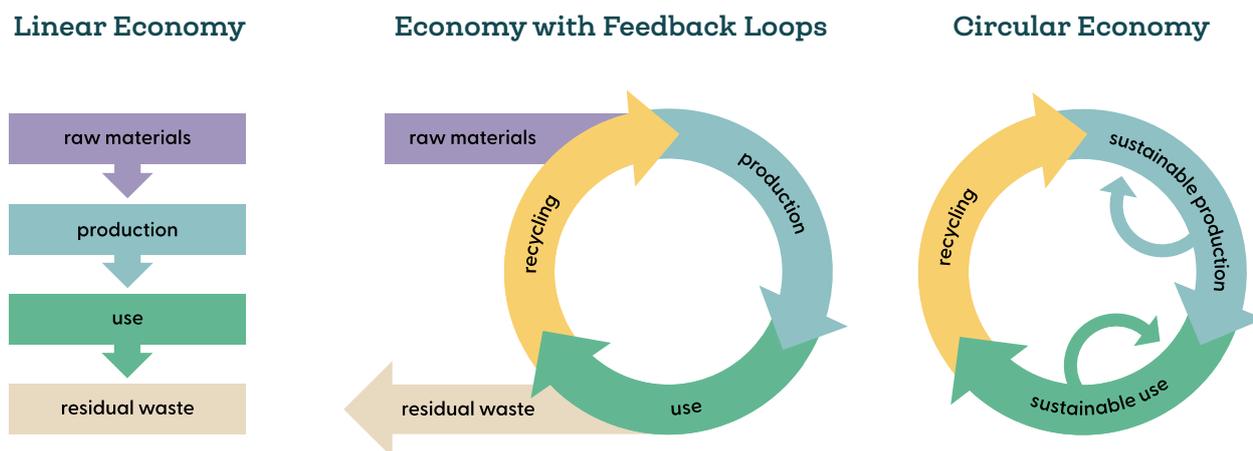


In our current economy, we take materials from the Earth, make products from them, and eventually throw them away as waste – the process is linear. In a circular economy, by contrast, we stop waste being produced in the first place.

The circular economy is a resilient system that is good for business, people and the environment.

Currently, the Goulburn Murray regional economy is predominantly linear, with some feedback loops. Case study 1 (page 12) describes how a company converts material from kerbside green bins into compost across four of the region’s local government areas. Case study 2 (page 13) explains how another company turns household plastic packaging into water pipes for agriculture and civil construction projects.

Figure 3. Characterising linear economy, economy with feedback loops, and circular economy



2. About this document

Aims and audience

This document reports on an investigation into:

- Regional circular economy activity, barriers and opportunities.
- What is needed to drive the circular economy in the Goulburn Murray region.

Priorities identified (as next steps) will support collaborative project opportunities.

However, the report's main value lies in the benefits from the processes used to produce it:

- The connections made with and between stakeholders during the investigation will enable the region to take the next steps collaboratively.
- The report is also complemented by three documents (see inside cover). All documents will help inform future work in the region.

This report is intended for all organisations and individuals interested in progressing the circular economy in the Goulburn Murray region, especially those wanting to help make the next steps.

Project scope

The project's geographic boundary approximated the Goulburn Murray region. Given the investigation was preliminary, a definitive boundary was not needed or appropriate.

The balance between engaging stakeholders to identify opportunities and raising expectations about the project had to be carefully managed, given the project's finite and limited time and resources. It is hoped that stakeholders will remain engaged: they are poised to contribute if collaborative opportunities arise.



Workshop participants: Reg Hicky (Watters Electrical), Zane and Peter Foott (Foott Waste Solutions), Terry Kay (RPM Pipes), Sarah Thomson (Goulburn Valley Water) and Chris Cumming (GB CMA).

How this report was developed

This report is the end product of a project led by GB CMA with funds from DEECA. GB CMA was well placed to act and lead the project on behalf of the Goulburn Murray region's stakeholders. GB CMA's networks, connections and partnerships have been developed over more than 30 years, and the circular economy is integral to its statutory role in protecting and enhancing land and water.

Coordinating and supporting multiple stakeholders to leverage the benefits from working together have become standard practice for GB CMA. Progressing the circular economy naturally extends GB CMAs collaborative approach into other sectors and industries managing their impacts on natural assets. This provides a clear path for exploring the circular economy.

This report is informed through three overlapping stages. Detailed records from all three stages have been retained separately as a resource to be referred to, updated and used as opportunities arise (see Complementary documents inside front cover).

1. Rapid desktop review

The first stage of the investigation involved a rapid scan of circular economy activity at local, state and national levels, with the aims of:

- gaining an understanding of circular economy models and approaches being used elsewhere; and
- identifying current local activity and people to interview in the second stage of the investigation.

2. Interviews of key personnel and case studies

The second stage involved semi-structured interviews of 35 personnel from private industry, state and local government, and the community. Sectors included dairy, energy, food processing, health, viticulture, waste and recycling, water, manufacturing, agriculture and natural resource management.

Interviewees were asked about their knowledge and thoughts on: current circular economy activities (locally and elsewhere); barriers; opportunities; next steps; and other relevant contacts.

Case studies were used to highlight two great examples of the circular economy in action in the region and can be found in Chapter 4.



Results of 'Three Horizons' approach used at the workshop.

3. Workshop

An April 2023 workshop of 23 stakeholders from private industry, state and local government, and the community reviewed results from the rapid desktop review and interviews, and identified priorities to progress the region's approach to the circular economy. For details see the complementary workshop report (GB CMA, 2023).

3. Strategic context

Circular economy momentum has been building around the globe over the last decade. Europe and China were early adopters.

(Circular Economy Victoria, 2020)

The Ellen MacArthur Foundation lists universal circular economy policy goals that “provide a framework ... to accelerate the transition” and examples of policy in practice from around the globe .

(Ellen MacArthur Foundation, 2023)

Australian federal, state and local governments are responding to global needs and momentum by investing in the circular economy, and policies are evolving fast.

This investigation did not exhaustively document policies: the emphasis was on identifying opportunities and the next steps. An online search can rapidly reveal hundreds of detailed reviews of policies at all scales, from global to local. Appendix 6 includes many relevant policies and other documents.

National policy

Transitioning to a more circular economy

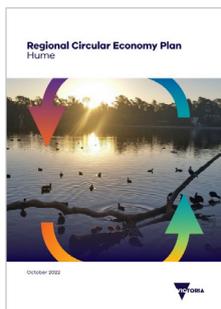
All of Australia’s environment ministers have agreed to work with the private sector to design out waste and pollution, keep materials in use and foster markets to achieve a circular economy by 2030.

This work builds on the significant progress made to improve and harmonise waste management and recycling activities across Australia, including under the National Waste Policy.

Minister for the Environment and Water, Tanya Plibersek, has established the Circular Economy Ministerial Advisory Group to advise government on the opportunities, challenges, and actions to develop Australia’s circular economy.

(Australian Government, 2023)

State policy



Victoria's plan for a circular economy

Our circular economy plan, Recycling Victoria: A new economy, steps out the systemic change that's needed to cut waste and boost recycling and reuse of our precious resources.

This is our plan for a cleaner, greener Victoria with less waste and pollution, more jobs and a sustainable and thriving circular economy.

(Victorian Government, 2021)

Recycling Victoria was formed on 1 July 2022 after the seven regional Waste and Resource Recovery Groups (WRRGs) were abolished. The legislative functions of these groups transferred to Recycling Victoria.

There will be one single (statutory) Victorian Recycling Infrastructure Plan (VRIP) that has a 30-year horizon, replacing the six Regional and one Metropolitan Waste and Resource Recovery Implementation Plans. The VRIP will be out next year (2024) and will consider Victoria's Regional Circular Economy Plans (RCEPs), including the Hume Regional Circular Economy Plan (DELWP, 2022).

The Hume RCEP sets out aspirations and priorities to 2030. This Plan is to be used as a resource for the Hume region to work together.

Strengths identified in the Hume RCEP were:

- Existing accessible network of materials recovery facilities (MRFs) and resource recovery centres (RRCs).
- Large capacity for organics processing and plastics reprocessing.

- Strong multi-modal transport links, proximity to Melbourne and access to the region's collection, sorting, processing and manufacturing precincts.
- Economic growth with a concentration of major food manufacturers – this helps with the supply of feed (organics) and use of recycled materials (glass).
- Business growth from collaborative investment models: public-private partnership, joint venture and small social enterprise.
- Benefit from the availability of land appropriately zoned for storing and processing recyclables.
- High uptake and participation rates of food and organics waste collection service.

Challenges identified in the Hume RCEP were:

- Large distances between waste sources and processing facilities equate to low economies of scale for some waste streams, high transport costs and high relative costs of small processing facilities reduces cost effectiveness of recycling.
- Lack of local-end markets and incentives, which discourages investment in resource recovery facilities or end-product manufacturing.
- Recycling industry dominated by large enterprises, which makes it harder for small materials recovery facilities to compete.
- Lack of legislative and financial incentives to encourage use of recycled material.
- Lack of financial incentives to innovate and red tape involved in sorting and processing.
- Fast growing population in the peri-urban areas of the region, such as Mitchell Shire, requiring infrastructure and services to meet growing demand.
- Significant organic materials being managed in Hume (Goulburn Valley) from other regions, including related biosecurity risks.

Regional policy: why the investigation was needed



The Goulburn Murray region has significant agricultural and associated industries that use enormous amounts of resources and produce large amounts of waste, so there are large potential benefits from developing a circular economy.

The region will generally transition faster to a circular economy through integrated efforts and alignment with all government tiers' policies.

Over the past three decades, the Goulburn Broken CMA and its predecessors have worked collaboratively with landholders, the community and other key stakeholders to prepare and implement updates of the Goulburn Broken Regional Catchment Strategy (GB CMA, 2022).

The Strategy has directed hundreds of projects that align with the regenerate nature principle of

a circular economy (Ellen MacArthur Foundation, 2023) (and Figure 4 below), improving outcomes for biodiversity, soil health, waterway health, water quality, water use efficiency, energy efficiency and climate change.

The Goulburn Murray Resilience Strategy 2020 (Goulburn Regional Partnership, 2020) is about creating a resilient region in the context of a changing climate.

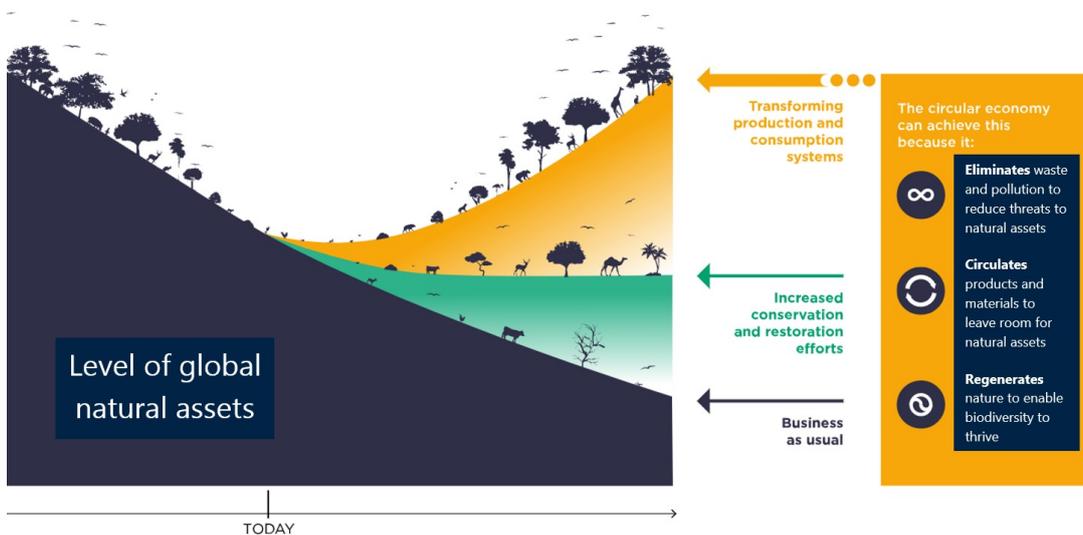
The Goulburn Murray Resilience Taskforce, which includes representatives from industry and interest groups, oversees the Strategy, identifying opportunities for resilience actions across the region at the appropriate scale.

The Strategy identified support to develop a circular economy as one of five intervention streams for influencing regional resilience, highlighting the opportunity to transform the way goods are produced and used to increase regional efficiency and self-sufficiency.

The Strategy also identified foundation interventions (for the circular economy) as:

- Regional circular economy coordination
- Biogas pilot
- Locally owned energy
- Indigenous renewables startup
- By-products as fertiliser
- Circular economy seed fund.

Figure 4. How the circular economy halts and reverses natural asset loss



This image is an adaptation of an image from the Ellen MacArthur Foundation website “How the circular economy can play a fundamental role in halting and reversing biodiversity loss”, which itself was an adaptation of an image presented by the Secretariat of the Convention on Biological Diversity’s report “Global Biodiversity Outlook 5” (2020) and the Nature article “Bending the curve of terrestrial biodiversity needs an integrated approach” (2020).

4. Investigation results

This chapter summarises results from the three overlapping stages of this investigative project.

Significant amounts of data were gathered and collated for use and updating beyond this investigative project. Lists of current activities, opportunities and ideas, and other elements of the circular economy are reproduced within various sections of this report, including the appendices. Detailed records from all three stages have been retained separately as a resource to be referred to, updated and used as opportunities arise (see Complementary documents inside front cover).

Stage 1: Rapid desktop review

A rapid scan of circular economy activity at local, state, national and international levels:

- uncovered large levels of activity at all scales;
- revealed compelling interest and enthusiasm from stakeholders involved in the project and an eagerness to get started on a circular economy journey;
- prompted many ideas to explore with stakeholders, especially the benefits that could come from connected activity;
- uncovered many useful contacts within and beyond the region; and
- prompted development of a live database (an internal Excel workbook), including lists of projects within the region and beyond and references.

Stage 2: Interviews of key personnel and case studies

Interviews of 35 personnel:

- highlighted the barriers and challenges that need to be overcome;
- highlighted many ideas and opportunities; and
- helped build relationships between potential partners.

Two in-depth interviews were used to develop case studies which can be found at the end of this chapter.

Stage 3: Stakeholder workshop

The workshop of 23 (mostly regional) stakeholders in April 2023:

- confirmed the key challenges to be considered as the region moves towards a circular economy (Table 1); and
- summarised the ideas and key points to be considered as the next steps are framed (Table 2).

Further details on investigation results

- Workshop report (GB CMA, 2023).
- Activity inside and outside the region (lists of projects; Appendix 1).
- Organisations consulted during the project (Appendix 2).
- Key challenges and details (Appendix 3).
- Opportunities and ideas (Appendix 4).
- Media coverage (Appendix 5).
- Policy documents and other references (Appendix 6).

Table 1. Key challenge groupings*

1	Moving from 'take, make, dispose' mindset to regenerative.
2	Limiting infrastructure .
3	Competing with cheaper 'linear' alternatives.
4	Local companies competing with multi-nationals.
5	Understanding the opportunities.
6	Complex, dynamic policy environment and limiting regulations.
7	Volume and/or scale to make it viable locally.
8	Lack of regional leadership and coordination.
9	Thinking about the end at the start.
10	Lack of knowledge and support.
11	Lack of funding and investment.

*Appendix 3 lists more detailed challenges.

Table 2. Goulburn Murray Circular Economy Workshop April 2023 – Key points

1	There are many challenges; some specific and many shared. There will be value in working together to tackle the challenges and learn from each other.
2	This region is well placed to transform many of the challenges into opportunities.
3	We need to aspire high, but we also need to identify what is practical to achieve and innovate now: what will take us the next steps forward?
4	Innovation comes from taking risks and accepting a degree of chaos, and it needs to be supported.
5	Different challenges need to be addressed at the right scale and will often need to be at regional or local levels.
6	Several existing projects within the region are appropriate to focus on, supporting them through challenges and using their experiences to learn from.
7	There are many circular economy activities happening in the region now.
8	Well designed, set up, and supported resource recovery centres could become central points for circular economy activities.
9	The region needs to advance the circular economy by retaining or capitalising on its: <ul style="list-style-type: none"> • reputation for clean, green agriculture and food production; • inherent strengths in transport, packaging and education (universities and research); • diverse culture and associated skillsets; • many innovators; and • general vibrancy and ‘can-do’ optimism.
10	A regional coordination network needs to be established to help target opportunities, such as innovative pilot and partnership projects, connecting participants with researchers, developing a stakeholder map, and using case studies to promote success and create awareness.
11	An input/output material flow analysis needs to be conducted to help identify opportunities.
12	Strong connections with researchers will be valuable.
13	When undertaking the next regional steps for progressing the circular economy, it will be important to invite people with experience and expertise from outside the region to advise on specific projects and issues.
14	A partnership approach to many circular economy projects helps reduce risks to individuals, making projects more viable because risks (as well as rewards) are shared.
15	Timing is often critical, so creating the right environment for a project to grow organically is sometimes preferred.
16	A regional approach to the circular economy can only happen if it is driven, and this requires resources: everyone needs to be alert to funding opportunities.
17	All of the community, including Traditional Owners and other cultures, need to be engaged in the circular economy.
18	Pilot projects would support government policy development.
19	Significant benefits will be extracted by coordinating efforts of multiple participants.



CASE STUDY 1



**Western
Composting Technology**

Western Composting Technology (WCT) collects material from kerbside green bins across the Greater Shepparton, Strathbogie, Moira and Campaspe shires and turns it into garden compost for supply to commercial landscape and turf companies.

WCT Operations Manager John Wilson said the company processed close to 30,000 tonnes of garden compost each year.

“So we epitomise the concept of circular economy. We collect your food and garden organics and transform it into compost,” Mr Wilson said.

“We’re continuing to develop ways to minimise our impact on landfill. The only material we send to landfill is the rubbish and plastics people put in their green bins.”

Western Composting Technology has produced premium quality compost for the past 14 years. In 2004, WCT won Greater Shepparton City Council’s tender to build, own and operate Victoria’s first alternative waste treatment facility to process garden waste from kerbside collections and transfer stations in the municipality.

The Shepparton team now collects and recycles green waste, garden waste and commercial food waste and processes it into usable compost products. And the company is about to expand, having been awarded the contract for the City of Greater Bendigo. Mr Wilson said WCT planned to build a best practice facility in Bendigo. “We have created our own circular economies – we process the waste locally and where possible sell the compost to local garden suppliers.”

Western Composting Technology is a family-owned business. Mr Wilson said WCT was the passion project of company owner Ken Dickens, a long-standing innovator in the waste industry.

“Ken is just so passionate about composting and green waste. We’re not here just to take green waste out of landfill, that’s part of what we do, but we’re passionate about the quality of our compost that gets put back into the soil. Our point of difference is we are serious about providing the best quality compost available to the market because that is our imprint on the environment.”



CASE STUDY 2



RPM Pipes is a family-owned business in Kyabram which has been turning kerbside recycling into high quality water pipes for more than 25 years.

Up to 5,000 milk bottles are recycled to produce one pipe. RPM Pipes offer a genuine closed-loop recycling solution – turning household plastic packaging into water pipes that can be used in agriculture and civil construction projects. This literally means that the waste plastics you place in your recycling bin beside the kerb could be transformed into a durable, effective storm waterpipe that could be later installed beneath your kerb to drain away storm water.

The distinctive look of the RPM pipes is due to the speckled colours of the recycled plastic material used to produce them. Managing Director Terry Kay said his company has been operating a circular economy for many years. “We’ve been doing this 26 years and it was a long road to gain people’s confidence but we’re getting there now,” Mr Kay said. In fact RPM Pipes has won the contracts for some of Victoria’s biggest urban development and roadworks projects.



“Yes, it’s a selling point that we use recycled material but it’s a commercial decision in the end and if the pipes weren’t any good, we wouldn’t still be in business.”

Mr Kay said the Goulburn Murray region was perfectly positioned to be a circular economy pioneer. “There is so much industry here and so many established transport links that we need to take greater advantage of,” he said.

“And also the knowledge from a manufacturing and processing perspective, we’re very lucky to have access to world leaders on our doorstep.”

5. Conclusion: current status and next steps

This chapter summarises the current status and needs for driving a circular economy in the Goulburn Murray Region. These findings are derived from the three overlapping stages of this investigative project.

The challenges and the opportunities

Ever-growing problems with environmental degradation and waste, accompanied by global momentum in responding, have made it imperative for communities and businesses to pursue a circular economy.

Since the 1980s, the Goulburn Murray regional community has developed an international reputation for collaboratively addressing natural resource sustainability challenges. The growth in regional circular economy activity is following a familiar trajectory. The transformation to a circular economy would increase the region's resilience in dealing with the effects of climate change, a growing population, and resource shocks.

The Goulburn Murray community is well-positioned for collaboratively and rapidly growing a circular economy:

- Many regional stakeholders are already moving towards a more circular economy. However, because most approaches have been developed and implemented independently, stakeholders are not getting the benefits from collaboration.
- The significant levels of regional activity, interest and will to accelerate action indicates an extremely large untapped capacity. The potential to create and transform regional enterprises and community approaches is enormous.
- It will be critical for regional economy action to be driven at a scale appropriate to allow local decisions and connections.
- Many local enterprises with proven track records have raw, shovel-ready project ideas, both for their businesses to directly undertake and for partnering with other stakeholders. Most of these projects are likely to be easy-to-start, low-risk circular economy wins. However, these projects will not progress without collaborative support.
- There is significant merit in advancing and trialling pilot projects within the region to support development and refinement of government policy and programs.
- The scale of regional energy, water and other resources used, and waste generated, is enormous. However, their sources, destinations and amounts are largely not known or poorly tracked. Better knowledge of what is happening and what is expected to happen is needed.

Next steps

As well as documenting progress and identifying the barriers, challenges and opportunities, the project has uncovered and progressed relationships that will help transform the region in terms of a circular economy.

However, this transformation can only happen if resources are available to drive it. The goodwill that has been built can soon be lost without action.

The critical next steps are to:

1. Appoint a senior person within a well-connected organisation to oversee the next phase.

The organisation needs to have established partnerships and be sensitive to existing regional connections so that the person can immediately drive the next steps, facilitating connections and networking opportunities across sectors.

Data and relationships identified during this investigative project provide the starting point for extending connections, investigating new opportunities, and bidding for funding.

Connections made both within and outside the region will be critical to continue.

2. Develop a supported circular economy network.

Although this investigative project was preliminary, it was able to easily discover significant levels of activity, most of which is disconnected. This reveals significant opportunity.

A network, which could be informal in the first instance, would help substantially in identifying opportunities by coordinating and linking enterprises and individuals.

The development of a more formal circular economy hub or network could be investigated. Participants would share ideas, collaborate, and be inspired by presenters from inside and outside the region.

3. Build community buy-in.

Everyone must play a role in the circular economy and most know that action is needed to sustain the planet in the long term.

However, tools are needed to engage all people in the circular economy. An understanding is needed of values and behaviours and what stops people from acting. Programs need to be designed to overcome barriers and grow the circular economy across the whole community. Marketing, incentives, and regulatory programs all must be considered.

4. Analyse material flows, the waste we produce and its potential uses.

The lack of definitive data on the scale of opportunities (in terms of waste and resource-use and recovery) makes it difficult to understand the potential and therefore which projects to target.

An approach to be explored is the City of Greater Bendigo-led project 'Central circular Victoria: a regional circular opportunity scan'.

The need for a material flow analysis was reinforced at a recent presentation from Circular Farms. Circular Farms is a digital platform connecting farmers, industry and researchers in collaborative, benefit-driven networks. Bringing together key players in a region, it's a place to share knowledge and draw the most value from every resource by making it easy to reduce, repair and recycle.

5. Identify and develop pilots and focus projects.

Several ideas need to be rapidly tested so that preferred pilots and good ideas can be advanced to government for co-funding, such as those described in the Goulburn Murray Resilience Strategy 2020 (and reproduced page 10). Other examples of opportunities that are ready to be pursued include:

- Work with and support local governments' current circular economy activities.
- Engage with Circular Farms to explore potential opportunities for the region.
- Support Greater Shepparton with its circular economy marketing campaign for business and create links to the Circular Economy Business Investment Centre.
- Work with the Heathcote winegrowers' compost-spreading project to maximise outcomes and lessons for others.
- Work with Dairy Australia to roll out its silage wrap recycling project in the region.
- Support GV Community Energy with waste-to-energy projects.
- Continue working with the water sector (where there is significant) activity.
- Continue working with the Committee for Greater Shepparton, in particular its Low Carbon leadership group.
- Develop a website for local examples, resources, contacts, links to relevant research etc.
- Work with local universities to set up trials or research as required.
- Support Greater Shepparton City Council to explore use of part of the 331-hectare GV Link site south of Mooropna for circular economy projects.

6. Develop a circular economy road map.

The greater knowledge, understanding and strengthened connections that emerge as the other five critical next steps (above) are taken will also enable a much tighter sense of a shared direction to emerge.

A detailed, collaborative road map for the circular economy would sharpen the regional focus and help extend an understanding of needs and opportunities to the broader community.

The road map would likely identify focus areas and priorities, including 'easy wins' for making progress.

References

See also Appendix 6 for further relevant documents.

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Appendices

Appendix 1:

Activity inside and outside the region collated throughout the project

Appendix 1.1: Examples of circular economy activity within the Goulburn Murray region

	Activity	Lead
1	Agri Voltaic Research Hub	Agriculture Victoria - Tatura Smart Farm Precinct
2	Repair café	Alexandra Repair Café
3	Back 2 Earth Composting	Back 2 Earth Composting
4	Biochar and Dung Beetles - a regenerative farming technique improving milk production, soil health and farm health	Climate and Agricultural Support Pty Ltd
5	Buy, swap and sell	Facebook marketplace
6	Circular Farms	Circular Farms
7	Low carbon leadership	Committee for Greater Shepparton
8	Cartridges 4 Planet Ark	Planet Ark
9	Close the loop trials	Moira Shire Council
10	Detox your home (mobile)	Sustainability Victoria
11	Agricultural and veterinary chemical container recycling	drumMUSTER
12	Echuca Regional Health solar thermal and sustainability planning	Echuca Regional Health
13	Energy Smart farming community of practice	Agriculture Victoria
14	Foodshare	Shepparton Foodshare
15	Foott Waste recycling programs	Foott Waste Solutions
16	From the Ground Up (Soil health)	GB CMA
17	Four-stream waste and recycling across Victoria	Victorian Government
18	Future ready Goulburn Valley region renewable hydrogen ecosystem project	Goulburn Valley Water
19	Sporting equipment recycling	Game On Recycling
20	Goulburn Broken Regional Catchment Strategy	GB CMA
21	Goulburn Murray Landcare Network regenerative agriculture workshops	Goulburn Murray Landcare Network
22	Girgarre biodigester for packaged food waste	Goulburn Valley Community Energy
23	Resource recovery centres (transfer stations) and kerbside organics	Local governments

	Activity	Lead
24	Our Climate Safe Future - Greater Shepparton's Climate Emergency Action Plan	Greater Shepparton City Council
25	Greater Shepparton circular economy marketing campaign	Greater Shepparton City Council
26	GrowAg	Department of Agriculture, Forestry and Fisheries and 15 Rural Research and Development Corporations
27	Global Green and Healthy Hospitals	Goulburn Valley Health
28	Compost spreading project	Heathcote Winegrowers Inc.
29	Hume Hydrogen Highway	Department of Energy, Environment and Climate Action
30	Katunga Fresh ECHO2	Katunga Fresh and Rainbow Bee Eater
31	Landmark solar structures	Partnership with Furphy Infrastructure group
32	Living Bin' Organics Management	Mt Buller Mt Stirling Alpine Resort Management
33	Mobile phone recycling	Mobilemuster
34	Milking regeneratively	Goulburn Regional Partnership
35	Events recycling trailer	Moira Shire Council
36	NorVicFoods	The University of Melbourne
37	Paint recycling	Paintback
38	Recycling Victoria Data Hub	Victorian Government
39	Responsible Cafés	Moira Shire Council
40	Pipe manufacturing from recycled plastic	RPM pipes
41	Silage wrap recycling	Campaspe Shire and Gecko Clan
42	Water reuse project - snow making	Mt Buller Mt Stirling Alpine Resort Management
43	Kerbside organics recycling	Western Composting Technologies , Biomix and Elmore Compost and Organics
44	Zero Carbon Tatura plan and Tatura home improvements project	Zero Carbon Tatura

Appendix 1.2: Examples of activity elsewhere (outside the region)

	Activity	Lead Organisation	Geographic Area
1	A circular economy in the Netherlands by 2050	Netherlands Government	Netherlands
2	Advisory System for Processing, Innovation and Resource Exchange (ASPIRE)	CSIRO	Australia wide and Asia Pacific
3	Australian Circular Economy Hub	Planet Ark Environmental Foundation	Australia
4	Recycling food waste into protien and fertiliser	Bardee	Melbourne
5	Barwon Water and Viva Energy renewable hydrogen project	Barwon Water and Viva Energy Australia	Geelong
6	Bega Circular Valley program	Bega Circular Valley Cooperative	Bega Valley
7	Building Circular Economy in Greater Bendigo	City of Greater Bendigo	Bendigo
8	CE100 Network	Ellen MacArthur Foundation	Global
9	Circular Australia	Circular Australia	Australia
10	Circular Ballarat	City of Ballarat	Ballarat
11	Circular Economy Living Lab	City of Casey	City of Casey
12	Carbon neutral remanufactured computers	Circular Computing	UK
13	Circular economy training agency	Circular Economy Institute	Global
14	Circular Economy Business Innovation Centre	Website hosted by Sustainability Victoria	Victoria
15	Circular Economy Hub	RMIT	Victoria
16	Circular Economy Victoria	Circular Economy Victoria	Victoria
17	Circular Plastics Australia	Circular Plastics Australia	Albury, Laverton and Altona
18	Close the Loop	Close the Loop	Australia
19	Colac Renewable Organics Network (RON)	Barwon Water	Colac
20	Circular economy consultants	Coreo	Brisbane (Global)
21	Creating circular economies with biofertilisers to improve resilience and diversify incomes with farmers	Riverine Plains (Victorian Drought Hub North East)	Bundalong
22	Crushed glass for footpaths	East Gippsland Shire Council	East Gippsland
23	Dairy sector food waste action plan	Dairy Australia	Australia
24	Plastic recycling	DMD plastics	Albury
25	Mercury recovery and recycling	Ecocycle	Australia

	Activity	Lead Organisation	Geographic Area
26	Insects converting food waste to protein and fertiliser	GoTerra	Canberra, Albury
27	Green Hydrogen Production and Distribution Network Along Hume Highway	Hydrogen Fuels Australia and Clara Energy	Hume Highway
28	GrowAg	Department of Agriculture, Forestry and Fisheries and 15 Rural Research and Development Corporations	National
29	Holla-Fresh ECHO2	Holla-Fresh, Green industries SA and Rainbow Bee Eater	South Australia
30	Hunter Central Coast Circular Economy Eco-System	Hunter Joint Organisation (10 local governments)	Hunter and Central Coast Regions (NSW)
31	Biogas generation	Kia-Ora Piggery	Yarrawalla, Victoria
32	Circular central Victoria: a regional circular opportunity scan	City of Greater Bendigo	Loddon-Mallee and Loddon-Campaspe regions
33	Soft plastic recycling	Plastic Forests	Albury
34	Regional Innovation for Circular Economy (RICE)	Various	Barwon South West Victoria
35	Facilitating transition to regenerative agriculture	ReNature	Global
36	Silage plastic recycling scheme	Dairy Australia	National, current trial in Western Victoria
37	Recycling the unrecyclable	Terracycle	Australia
38	Tetrapak recycling	PlanetArk/Recycling Near You, saveBOARD	Australia
39	Recycled plastic pipe	The Green Pipe	Moama
40	Tool library	Ballarat Tool Library	Ballarat
41	Yarra Valley Water biodigester	Yarra Valley Water	Yarra Valley
42	National food rescue program	Second bite	Victoria
43	Wannon Water Circular Economy Roadmap	Wannon Water & Think Place	South western Victoria
44	Nowra bioenergy facility	Innovating Energy Pty Ltd	Nowra
45	Community of climate tech entrepreneurs	Climate Salad	Australia
46	Physical innovation hub and network for circular economy	Victorian Circular Activator	Victoria

Appendix 2: Organisations consulted during the project

- Agriculture Victoria
- Aurecon (on behalf of City of Greater Bendigo and others)
- Australian Resilience Centre
- Barwon Water
- Bega (Bega Circular Valley)
- Circular Farms
- City of Greater Shepparton
- Committee for Greater Shepparton
- Dairy Australia
- DEECA (Regional recycling)
- DEECA (Water & Catchments)
- Echuca Regional Health
- Foott Waste
- Gouge Linen and Garment Services
- Goulburn Broken Catchment Management Authority
- Goulburn Murray Landcare Network
- Goulburn Murray Resilience Taskforce
- Goulburn-Murray Water
- Goulburn Valley Community Energy
- Goulburn Valley Water
- Heathcote Winegrowers Inc
- Kilter Rural
- La Trobe University
- Moira Shire Council
- Murray Dairy
- Recycling Victoria
- Regional Innovation for Circular Economy (RICE)
- RPM Pipes
- Sustainability Victoria
- Terrain Natural Resource Management
- Think Place
- University of Melbourne
- Wannon Water
- Watters Electrical
- Western Composting Technologies
- Zero Carbon Tatura

Appendix 3:

Key challenges and details collected during the workshop and interviews

Moving from ‘take, make, dispose’ mindset to regenerative

- Ownership of the problem (responsibility).
- Business owners (including farmers) need to have confidence to change, concerned that it will affect profitability.
- Incentive to not pollute often not big enough.
- People are busy, to make a change need certain things in place. Pathway not yet clear enough for people to see how they could change.

Limiting infrastructure

- Need changes to the energy network, capacity of grid for solar feed in and getting a better rate.
- Electricity grid restrictions and market rules and/or restrictions.
- Separation of products into various components for recycling.
- Mismatch between dairy and solar, milking in dark, storage (batteries) needed to make it work.
- Current suppliers of bioenergy plants are from overseas (salesperson here but no technical staff) creates a risk because they won't necessarily help with set up and any ongoing issues.
- Local businesses are not currently set up to deliver what is needed to reduce emissions and develop a circular economy.

Competing with cheaper ‘linear’ alternatives and local companies competing with multi-nationals

- Grants are time consuming and costly to apply for, smaller businesses find it hard to find time and resources whereas larger companies have staff dedicated to applying for funding. Co-contributions can also be tricky for smaller businesses and start-ups.
- Commercial decisions and competitiveness.
- Cost to recycle needs to be viable. Australian manufacturers can't compete with cheap, new products from China.

- Duopoly in waste and recycling, hard for smaller players to get involved and compete. Big dominating businesses still get access to large amounts of government funding.
- People not always willing to pay for Australian made.

Understanding the opportunities

- How do smaller farmers, producers or businesses find markets, where are the opportunities for collaboration in this space?
- Technology is rapidly changing, how to keep up with that and do you go 1st or 4th?
- How to build confidence in other people's outputs and dealing with the requirement of guaranteed supply of feedstock.
- Huge number of start-ups looking for places to trial their technology, need to be prepared to learn together. Works well when have someone with a problem and someone with a potential solution working together.
- Farmers producing a valuable product, their business isn't to deal with waste. Middleman missing to help explore opportunities.

Complex, dynamic policy environment and limiting regulations

- Volatility of waste and recycling sector, price fluctuations, export issues etc. based on global politics.
- Don't overcomplicate simple issues and/or solutions.
- Conflicting policies and/or rules around food waste e.g. out of date food donated by foodbank to evacuation centres during floods but Environmental Health department wouldn't approve and had to be thrown out.
- Technology may be available but 'approval' process very unknown and likely to be costly and time consuming when new territory.
- Policies stuck in the past.

- Have we got the settings to enable change or are we bogged in red tape?
- Inconsistency in rules.
- Planning regulations are a huge impediment. Most of the studies required don't add value to community or environment and are very expensive. Need a review of planning requirements, adding a huge cost and timeframe blows out.
- How can we protect nature? Regulation is important but not adequate. Regulation might be strong but if nobody to enforce it, all negative. Current balance between regulation and incentives isn't right. Lots of talk about protecting nature but we haven't got the mechanisms right yet.
- Tyres are reused on silage stacks but then can cause issues with EPA regulations (storage, stock piling).
- Risks involved with recycling and reusing, how to ensure good processes and good quality products at the end (often get cowboys ruining it for those with the right intentions) compliance issues involved with recycling, repairing, storing etc.
- Regulations around recycled product and/or by-products e.g. to use digestate produced from waste to energy biodigester as a fertiliser on farms.
- Sometimes landfill is cheaper option, especially if need to separate components. Most components need to be transported elsewhere so the economic and environmental benefits stack up when have larger quantities. Depackaging facility near Echuca (150 kms), Melbourne and Corowa, not viable to have one in every town which creates challenge with logistics. Government model has been that private industry will pick this up and fill this gap but they won't if not financially viable.
- Costs to farmers to access high value product e.g. compost (quality, testing etc.), transport and spreading costs high and quality often unknown.
- Need consistent feedstock, whether it be for processing plastics or running a biodigester.

Lack of regional leadership and coordination

- Engaging with cultural diversity (including Traditional Owners).
- Need a dedicated person to demonstrate value and benefits and work through some of the barriers.
- Needs continuity of effort. Can't just rely on government because staff and processes change so much, no continuity.
- When speaking locally about circular economy, renewable energy etc. no one thinks it is a bad idea, it is all about how we get there. Need regional leadership to move forward.
- How do we create an environment that supports innovation?
- Alignment with other key stakeholders
- Regional Waste and Resource Recovery Groups no longer exist. Regional Plans no longer exist. State-wide Infrastructure Plan being developed to replace these. Potential advantage - consolidate resources. Disadvantage, loose regional connection, consultation and ownership.

Lack of knowledge and support

- Across all sectors.
- Understanding link between human health and environmental issues.

Volume and/or scale to make it viable locally

- Transport costs and environmental impacts, where 'waste' needs to be transported to be processed and/or utilised.
- Logistics, distance between where waste is produced and can be used (more reason to look at local opportunities).
- Volume can be an issue at a regional level.
- Recycling is a value, high volume game.

- Compost, we can tell landholders what sort of thing to look for in regard to compost and fertilisers but not specifics about how to apply compost and what rates. Australian standard is about pasteurisation not about product quality. Compared to synthetic fertiliser where they know exactly what they are getting (e.g. %N, P etc.).
- Availability of good information so people are aware of the opportunities and can be convinced it is worth changing.
- Many research organisations are here, trial opportunities, how do we create a hub of research and investigation here? Make this the place to do research in the practical application, people training, OHS, EPA, local impacts etc.
- Lots of talk about what is possible but need some real examples locally now.
- How to move from ideas to action is often missing from presentations, workshops etc.
- Understanding about infectious control risk and new reusable products available in the health sector, requires education and training to change over.
- How do we engage and involve the younger generations? 45 percent of Gen Z have started a business before they were 16, budding entrepreneurs. Want to include science, want to look at doing things better, more efficiently, more environmentally friendly etc.
- Not necessarily a technology problem, might be an incentive problem but certainly a knowledge problem (farmers unaware of the opportunities and/or how to implement them).
- Lack of skills.
- Wicked problems need complex solutions and thinking .

Thinking about the end at the start

- Contamination in food waste, PFAS even in compostable packaging, hard to make good products (fertilisers etc.) from food waste if full of contaminants, need to start at the very beginning of the process of growing, packing, etc.
- Pricing structure, things are not made to last or be repaired.

- At least five years away in Australia from filling gap between amount of plastic being recycled and find a use for those plastics.

Lack of funding and investment

- Funding and resources to implement changes required. Already understaffed so doing anything 'extra' is very difficult.
- State Government has strong policies in this space and there is a willingness to support regions to achieve goals. Missing the resources to be able to coordinate and implement the work that needs to happen. Local Government have no capacity to manage funding, don't have the staff to apply, manage, recruit and implement 'extra' projects.
- Need staff to support people to do the work that needs to be done.
- Not enough of the waste levy going back to industry to innovate and make progress.
- Equipment costs to convert to a circular economy.
- Regional resource recovery centres don't make money, need to be subsidised.
- Government not supporting start-up businesses trying to develop uses for and products from recycled plastic.
- Government grants are very expensive money, takes lots of time and effort to apply per dollar.
- Attracting investment into a new space with new ideas and concepts.
- Protecting nature, how do we fund it? Government can't afford it, how do we do it? Protecting nature is fundamental to having and building value over time. Protecting nature should be part of what farmers do in their business, get paid for it like other commodities.

Appendix 4:

Opportunities and ideas collected during the workshop and interviews

Coordination

- Resources, need a dedicated person to demonstrate value and benefits and work through some of the barriers.
- Need regional leadership and coordination.
- Timing is great, so many opportunities. Climate emergency, Biodiversity crisis, time is now, might only need four staff across region to look for funding opportunities, manage projects, make things happen.
- Need scouts whose role it is to look out for new opportunities and then investigate further to see if it would apply/be useful here. Could then also work with local universities to undertake trials or research if required.

Education

- Ellen MacArthur Foundation, The Big Food Redesign, work with food industry to transform how we produce, use and consume food to tackle biodiversity loss and climate change. Circular design of food.
- Funding for regenerative and/or sustainable agriculture including support for landholders to understand and trial Regenerative Agriculture. Good information for landholders about potential benefits. Examples of where it is being applied to profitable farms.
- Methodology for using compost on farms. Different methods available, need to know which one is best in a certain situation.
- Look for opportunities to train people, fund people to do the United Nations training, tack onto Fairley Leadership Program, get into schools.
- Develop an education pack to help explain CE and how businesses and organisations can get started or involved.
- Get into schools.

- Investigate joining Ellen MacArthur Foundation Network community platform.
- Nature at work, find evidence to tell the story.

Innovation

- Government support for innovation, funding for start-ups.
- How do we create an environment that supports innovation?
- CSIRO ON Program can help researchers take their idea from concept to market.
- Technology is already available but need to investigate policy setting and what is required to enable, eliminate obstacles, may need to incentivise early adopters to tackle the legislation.

Resource mapping

- Investigate potential waste streams from Agriculture e.g. silage wrap and silage pit covers, grain bags, effluent, wasted fruit, net wrap etc.
- Dairy and cropping are often well connected but there is huge potential to link some of the other agriculture industries together better (food manufacturers, horticulture etc). Their waste products may have a role in bedding, fixing paddocks, feeding cows etc.
- Chook farms wanting to know what they can do with material, need disposal options. How and where could it be used?
- Engage with Circular farms to explore potential opportunities for the region.
- Waste mapping, need to look at what waste, how produced, how can it be used or what's the transformation opportunity, best method and who could we sell to?
- So many waste streams here from farms, food manufacturing etc. that could be better used.

- Mapping out what we do, who's involved, what comes first. What are the domains of transformation that we want to see? How do you organise that? By sector? Food manufacturing first maybe?
- Undertake a material flow analysis for the region.
- Food waste from supermarkets, dumped on land, could be put to better use.

Network and/or hub

- Perfectly located for a Circular Economy Hub due to central location and proximity to major roads. Main road from Sydney to Adelaide, Melbourne to Brisbane and Melbourne to Sydney, entire eastern seaboard freight runs within 70 kms of Shepparton. Could invite start-ups, get business of the ground with the support of industry. Who funds it, what does it look like? Would Government support it?
- Investigate structure, governance arrangements and suitability for here of other circular economy networks e.g. Regional Innovation for Circular Economy model in Barwon South West, Hunter Circular.
- Tap into local business networks to understand what is needed better.
- Shareholders, consumers, banks, insurance companies, export markets all starting to look for businesses to be more sustainable, circular economy actions are a marketing opportunity.
- Could start a group that get together to discuss circular economy ideas every few months, could possibly share grant writing for joint projects.
- Link local businesses into the Circular Economy Business Investment Centre.
- Develop a website for local examples, resources, contacts, links to relevant research etc.
- Organise networking opportunities, events, regular meetings, site visits and excursions etc.
- Investigate the use of award programs to reward those who are taking a circular economy path .
- GMID Resilience Taskforce, could split in half so can focus more. Need sense of urgency. Key staff.

- Clusters, work together in a smaller geographic area to come up with ideas and solutions and not be worried about competing.
- How can we collectively support and assist local businesses to adapt, trial new technology etc. what is required to enable, eliminate obstacles.
- Jigsaw, lots of pieces everywhere, how do we put them altogether?
- How can we collectively advocate for improved infrastructure, improved electricity network, policy development, Renewal Energy Target for gas etc.
- How do we act on opportunities collaboratively e.g. Future fuels CRC report that looked at where the most viable locations for bioenergy are in Shepparton and Echuca.
- Collectively encourage 'big business' to do more e.g. Harvey Norman, Bunnings etc. by inviting them to be involved.
- How do we make connections between different industries, sectors etc. so that waste and re-use options can be explored?
- How do we work with and support the health sector?
- Investigate the idea of developing a Circular Economy Hub for Goulburn Broken (or Community of Practice?) Share ideas, invite presenters e.g. GoTerra.

Online marketplace

- Investigate the use of a digital 'Marketplace' to connect producers of waste with re-users e.g. Advisory System for Processing, Innovation and Resource Exchange (ASPIRE).

Organisational

- Internal – look at what can be done within organisations including GB CMA (corporate uniforms, fleet, waste and recycling, corporate emissions etc.) Is there a template or good example somewhere?
- Run a circular economy lens across procurement policies.
- Look at how individual organisations can apply reduce, reuse and recycle, maybe develop a guide for organisations to apply circular economy to their own business.

Research/Trial/Case study

- Case studies, practical examples to show others what is possible. 'Showcase' current projects already underway.
- Identify and support local communities showing an interest in this space e.g. Violet Town, Tatura and Girgarre.
- Many research organisations are here, trial opportunities, on-site learning. Technology is already available but could investigate policy setting and what is required to enable and eliminate obstacles, may need to incentivise early adopters to tackle the legislation. Make this the place to do research in the practical application, people training, OHS, EPA, local impacts etc. Need these answers for marketing down the track too.
- Huge number of start-ups looking for places to trial their technologies, need to be prepared to learn together. Works well when have someone with a problem and someone with a potential solution working together, won't always succeed first time but learning together.
- Investigate opportunities to work with local research organisations e.g. Melbourne Uni, La Trobe, Smart Farms etc., where is the centre of excellence? Instead of happening in Melbourne it could be here where all parts are so accessible.
- Three empty schools with facilities in Shepparton and Mooroopna, what could they be used for? A number of universities in region, could be researching circular economy ideas and opportunities.
- Australian Fresh Milk Holdings (own Coomboona dairy, Noumi is processor) looking at biodigesters, using effluent, happy to lose money for the benefit of the industry. Can import technologies. May be able to trial, might help with uptake.
- Support Council to explore circular economy opportunities at the GV link site.
- Can others help improve Resource recovery centres, can we make them a community resource? Circular economy centre? Range of contributors? Recycling and reuse of second hand equipment, green waste etc. Pool resources. Provide services for community.
- GV has 1/5 of State's Resource Recovery Centres (RRCs), consolidation opportunities, four state hub facilities (statewide role). Many items are taken to the RRCs for re-sale and/or recycling.

Appendix 5: Media coverage during the project

Country News, April 18, 2023

Circular economy gains traction



Goulburn Murray Resilience Taskforce chair Sarah Thomson, Recycling Victoria's Nick Nagle and Goulburn Broken CMA chief executive officer Chris Cumming at the recent forum on progressing a circular economy in the region.

Goulburn Murray region industry heavy-hitters are getting behind the concept of a circular economy.

Community and industry leaders attended a forum earlier this month to progress the concept, which is based on using waste streams to manufacture sustainable products.

The forum, organised by the Goulburn Broken Catchment Management Authority and funded by the Department of Energy, Environment and Climate Action, highlighted possible pathways and obstacles to the establishment of a circular economy in the region.

Goulburn Murray Resilience Taskforce chair Sarah Thomson said she was pleased with the representation from business, government and the community.

"We had some industry people in the room who are already doing really clever

things around the use of waste for manufacturing and it's truly inspiring to hear their stories," she said.

Ms Thomson said she would welcome funding for the taskforce to progress work which is already being done in the region.

"The Goulburn Murray Resilience Taskforce is a good model to work with government to start those transitions and steps we need to take towards a circular economy."

Recycling Victoria's Nick Nagle said there was plenty of spirited conversation at the forum and the region was closer to achieving its desired outcome than when a similar group met 12 months ago.

"Meetings like this help with ongoing facilitation, sharing information and uncovering good news stories. It's a step in the process of where we want to go," Mr Nagle said

Committee for Greater Shepparton chief executive officer Linda Nieuwenhuizen said the Goulburn Murray region was uniquely positioned to lead the charge towards a circular economy.

"Our geography, diversity of industry, climate and water resources combine to give us an advantage that no other region can replicate," Ms Nieuwenhuizen said.

"The 101 of competitive advantage is what have we got that no place else has and how can we build on that?"

"We've also got the whole supply chain in one region and planning for a circular economy would add another string to our bow."

The next steps will see the Goulburn Broken CMA produce a summary of the actions that need to happen for the region to collectively make use of its resources.

Foott family vision proves a growth success story

12-acre site is set for expansion in waste /recycling

THE mix of extraordinary growth in the packaging industry, and the community's expectation of world class recycling has set the scene for one local family to strive for worldbest practice.

1992 must seem eons away for the Foott family, that's when Peter and Jenny Foott started their waste and recycling business with one truck and a dream in the Goulburn Valley.

Today the Foott family service large parts of northern Victoria with 21 trucks and a recently completed state-of-the-art waste management complex spread over a 12-acre site and home to 48 staff.

It's a real local success story from the ground up that not only the Foott family ought to be proud of, but also all those involved who have helped make it happen.

The family's vision has turned into three businesses, Foott Waste & Recycling, Benalla Waste & Recycling and Bloo Loos Toilet Hire, the latter proving a runaway success with 600 portable loos carted all over the countryside to small and large events, including the Great Victorian Bike Ride.

Joining the family business in 2016 and learning the business from the ground up has been eldest son Zane, who came well credentialed with a diploma in logistics, recipient of several awards and is highly recognised for helping expand the companies.

The Foott family celebrated a network night at the new premises in Carroll Road, off Benalla Road, Shepparton last Tuesday, organised by the Chamber, 50 guests were given a guided tour of the new complex.

Reflecting on the ongoing success and development of the enterprise, Foott director and board chair, Peter Foott said, "I'm proud of the work we have been doing over the last 30 years, and we want to continue to lead the circular economy throughout regional Victoria by partnering with key local businesses and community organisations.

"We have several exciting growth



PART OF THE FOOTT FAMILY SUCCESS STORY...from left; Zane Foott with Liz Connick, Peter Foott, Stephen Schneider of GSBN and Simon Rutkowski of Victorian Chamber of Commerce & Industry. Photos: Geoff Adams



THE NEW STATE-OF-THE-ART...

Foott waste management complex is spread out over a 12-acre site in Carroll Road, and is home to 21 trucks and 48 staff, servicing large parts of northern Victoria. Photo: Supplied

opportunities that we are working towards such as the CDS depots in Shepparton, Benalla and Yarrawonga which will allow us to further support our local communities to recycle. Providing our local communities, the opportunity to recycle their eligible cans and bottles and keep them out of landfill, while earning some extra cash for themselves, their businesses, charities, school, and sporting

clubs at the same time is a great win for the communities and the region."

The night was also an opportunity for the Chamber president John Anderson to launch the new membership prospectus and new name for the Chamber, Greater Shepparton Business Network.

It's all part of a refresh program of the Chamber going forward.

Let's not waste our potential



LINDA NIEUWENHUIZEN

Committee for Greater Shepparton chief executive

At Tuesday's special meeting, council will consider who will deliver Greater Shepparton's recycling and kerbside waste services through to 2040.

This decision will also determine who owns and benefits from one of our largest local waste resources for the next 15 years.

This decision is being made at a time when the circular economy, waste to energy and similar opportunities are rapidly evolving, attracting significant public and private investment, and promising to be a catalyst for exciting new skills, careers, research and development, businesses and services.

According to the World Business Council for Sustainable Development, the circular economy is estimated to be worth up to \$4.5 trillion.

Council's Climate Emergency Action Plan confirms that like many in our community, council is eager to secure these opportunities in and for our region.

As recently as this week, the Goulburn Broken Catchment Management Authority brought industry and agencies together, including council, to discuss the next steps in realising our region's ambition for a circular economy, including waste to energy.

At the same time, businesses in Greater Shepparton are investing in projects to harness our waste streams to deliver, for example, new sources of energy, construction materials and fertilisers.

Outputs that can secure the future for our existing businesses and attract new industry.

And while other centres may have similar aspirations, they can't match our location as the most important intersection in south-east Australia.

We are incredibly well placed to grow circular industries and to provide the training and services others will need.

It is increasingly apparent that the first steps to realising our opportunities is to ensure our local waste remains in our region, and that we foster local skills, businesses and capability.



Wonderful opportunity: A chance to award a huge contract locally is a chance not to be missed.

Greater Shepparton generates double and even triple the waste volumes of the other councils that participated in the recent Hume collaborative procurement process.

This means we have a significantly larger opportunity ahead of us.

Council intends to replace its "Waste and Resource Recovery Management Strategy 2013-2023 with a Circular Economy Strategy that will focus on new solutions on waste and recycling..."

It would be disappointing if Tuesday's decision resulted in our waste resources leaving the region and hence were not available to our local circular economy — including any of the opportunities that may emerge from council's strategy.

Council procurement processes

generally include a weighting in favour of local content and industry.

Unlike most of the participating councils, Greater Shepparton has a significant local waste services sector, including locally grown businesses.

In fact, our waste sector is 50 per cent larger than the average for regional Victoria.

Council's waste services contract is an opportunity for council to prioritise our local waste businesses' scale, capability and innovation, and with it the opportunity for our region to be at the forefront of one of the most exciting eras of global innovation.

For the reasons outlined, we are encouraging council to use the recommendation from the Hume collective procurement process as a

benchmark but to not overlook or dismiss the significant opportunity for Greater Shepparton that isn't an option for the other participating councils.

We are of the view that securing our waste resources in the region and prioritising local skills, business and capability are critical to realising our region's potential.

Let's make sure that the next 15 years of waste management in Greater Shepparton are set up to extract all that is possible from our waste resources, to benefit Greater Shepparton's current and future residents and industry, and to advance our shared ambition.

• Linda Nieuwenhuizen is the chief executive of the Committee for Greater Shepparton

Appendix 6: Policy documents and other references

The following references were rapidly reviewed:

Information source	By	Geographic area
Building on Strengths	Committee for Greater Shepparton	Greater Shepparton
Circular Economy – Hub Integration Report	Victorian Circular Activator	Victoria
Circular Economy and the 2030 Agenda	United Nations	International
Circular economy roadmap for plastics, glass, paper and tyres	CSIRO (Sarah King)	Australia
Circular Economy Action Plan	Water Services Association of Australia	Australia
Collaborate to Thrive – Strategic Opportunities paper	Circular Economy Victoria/Victorian Circular activator	City of Casey
Ellen MacArthur Foundation	Ellen MacArthur Foundation	International
Embedding regional resilience using the circular economy	Aurecon	Goulburn Valley
Goulburn Murray Resilience Strategy	Goulburn Regional Partnership	GMID
Hume Regional Circular Economy Plan	Victorian Government	Hume Region
Hunter and Central Coast Circular Roadmap	Hunter Circular	Hunter and Central Coast Regions (NSW)
The Value of Everything	Mariana Mazzucato	International
National Waste Policy Action Plan	Australian Government	International
Podcast, Engineering reimagined: Designing a circular future through collaboration	Aurecon	GMID
Recycling Victoria Data Hub	Victorian Government	Victoria
Recycling Victoria: A new economy	Victorian Government	Victoria
Soils and carbons for reduced emissions	Agriculture Victoria	Victoria
The big food redesign study	Ellen MacArthur Foundation	International
The circular economy: Moving from theory to practice	McKinsey and Company	International
The Circularity Gap Report	Circle Economy	International
The Nature Imperative: How the circular economy tackles biodiversity loss	Ellen MacArthur Foundation	International
Transforming our World: the 2030 Agenda for Sustainable Development	United Nations	International
Transitioning the water industry with the circular economy	Institute for Sustainable Futures (UTS) and Water Services Australia	National
Victorian Waste to Energy Framework	Recycling Victoria	Victoria
Water and Circular Economy – White Paper (Global)	ARUP, Ellen MacArthur Foundation and AnteaGroup	International
Water Utility Pathways in a Circular Economy	International Water Association	International
Zero Carbon Tatura Plan – Stage 1	Zero Carbon Tatura Group	Tatura



