

# Winding Down Wineries Food Waste

## Food Waste Management Solutions Toolkit

Pioneering Sustainability  
in the Hunter Valley  
Wine Region



## Implementation Toolkit

A step-by-step guide to prevent, avoid, reduce and manage food waste generated by hospitality services in wine and tourist destinations.

Developed by Go Circular in collaboration with NSW EPA and Hunter Valley Hospitality sector.

## Acknowledgement

Winding Down Wineries Food Waste, brought to you by the NSW Government through the NSW Environment Protection Authority.

January 2026.

Image: EXP



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# Food waste in the context of wine regions

## Sustainability in wine regions

Australian wine regions are increasingly adopting sustainable practices, supported by a range of national initiatives and commitments.

These include:

### Sustainable Winegrowing Australia

A national program that provides frameworks, auditing and tools for grape growers and winemakers to adopt best-practice environmental, social and economic sustainability.



### Wine Australia's Emissions Reduction Roadmap

Identifies key areas where emissions can be reduced and sets targets for 2030.



Research by Wine Australia found customers, retailers and regulators expect businesses to deliver tangible actions that care for the environment and the community.

For hospitality businesses in wine regions, reducing food waste is an important way to protect the natural resources, support sustainable tourism, and meet growing expectations for environmental responsibility.



## Wine Australia

*"The Australian wine sector (grape growing + winemaking + visitor tourism) contributes approximately A\$51.3 billion to the economy and supports over 203,000 jobs.*

*Of this, the winery visitor and hospitality experience plays a key part by attracting 7.5 million visits and generating around A\$11.6 billion in visitor spend in 2024, maintaining the quality and sustainability of that experience is important.*

*Given the higher spend per trip for those visiting cellar doors (~ A\$1,487 on average), the hospitality component of wineries is a high value touch point.*

*Reducing food waste in that hospitality setting not only lowers cost and improves environmental performance, but also helps protect the reputation, visitor experience and economic vitality of the region."*

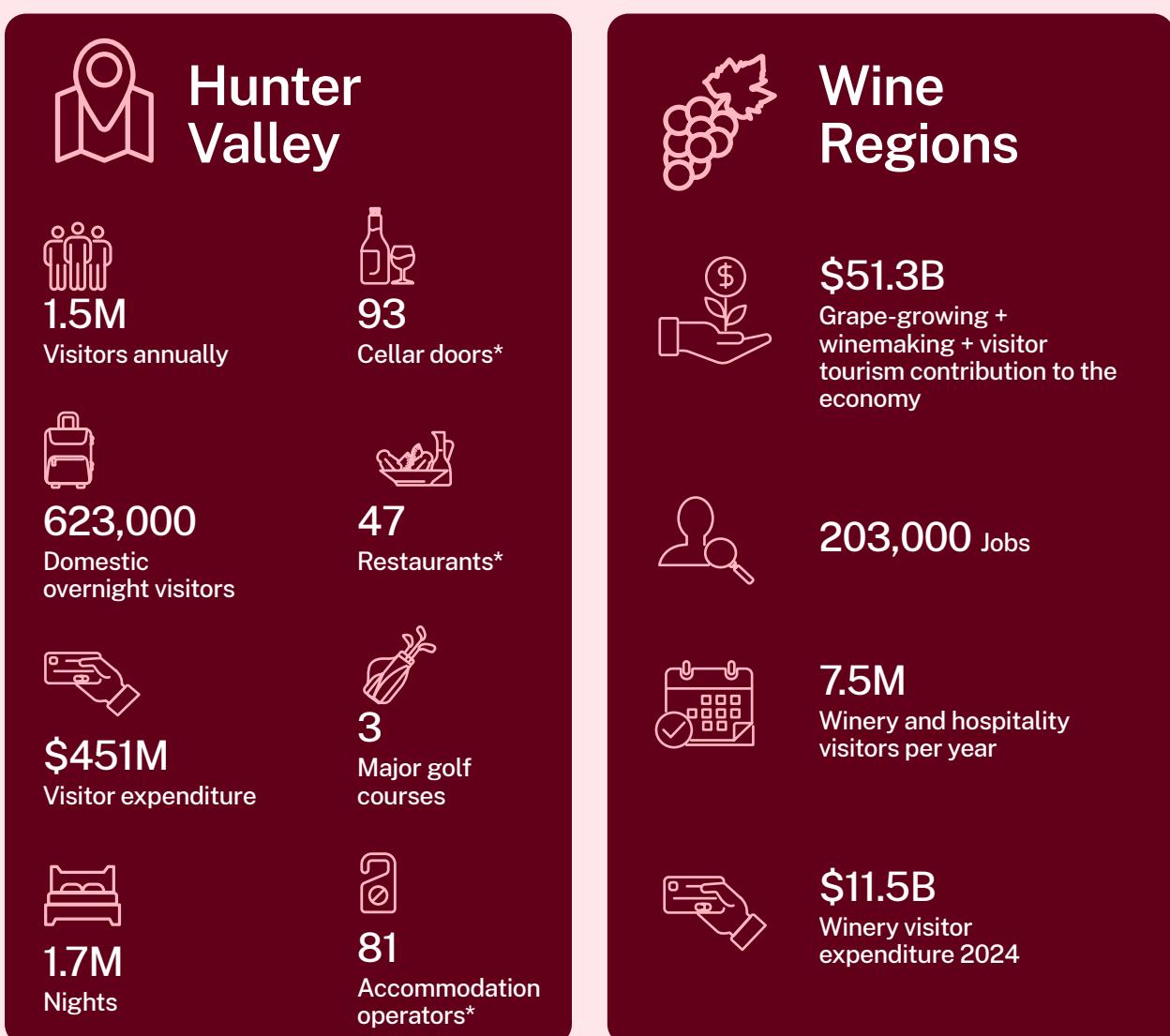


Image: Elfes Images

## Hunter Valley wine region—a unique advantage as a destination

Renowned worldwide as a gourmet getaway, it's the birthplace of Australian wines, known for its exquisite varieties of semillon and shiraz. Geographically, it sits close to two of the largest urban populations in New South Wales, Sydney and Newcastle, yet is perceived by visitors as a natural, scenic country escape. This combination of accessibility and landscape appeal has fostered a strong visitor economy.

The region has developed a mature tourism market, shaped by its prominent wine and food experiences, a large day trip visitor base, and a reputation for hosting major events. There are over 150 cellar doors and a growing number of innovative restaurants offering opportunities for indulgence across every pocket of the region. Its strong history of farming lends itself to incredible paddock to plate and biodynamic experiences, adding that extra satisfaction to your gourmet delights.



SOURCE: Wine Australia, Hunter Valley Destination Management Plan 2022-2030 \*HVVTA members.

# Why food waste?

## Why 1: Mandate and policies



### NSW Food Organics Garden Organics (FOGO) Mandate

Under new laws, from 1 July 2026 businesses or institutions that sell or handle food, like supermarkets, cafes, restaurants and hotels, must separate food waste from general waste.

New rules coming to NSW

From 1 July 2026

## BUSINESSES MUST SEPARATE FOOD WASTE



Businesses generating 4000 litres of waste a week, equivalent to 2 skip bins or more, must separate food waste from general waste to reduce landfill and emissions.

Get your business ready



food waste NSW

“NSW produces around 1.7 million tonnes of food waste each year. It’s a major challenge we take seriously at the EPA. Reducing food waste is key to easing pressure on landfill and creating a more sustainable future.”

**NSW Environment Protection Authority (EPA)**

The NSW Government has committed to halving organic waste being disposed of in landfill by 2030. The [NSW Waste and Sustainable Materials Strategy 2041](#) stipulates that mandating the source separation of food and garden organics for households and businesses is a key policy reform. This commitment is part of the broader Australian Government’s net zero commitment.



Net Zero Government  
Operational Policy



NSW Government Waste  
and Sustainable Materials  
Strategy



NSW Government  
Net Zero Plan

## Get ready

The mandates requiring separation of food waste from general waste will happen in stages from 1 July 2026, based on weekly rubbish bin volumes:

- Relevant premises with residual waste capacity  $\geq$  six 660L bins, or  $\geq$  16 x 240L bins, or any combination of bins  $\geq$  3,960L must comply by **1 July 2026**
- Relevant premises with residual waste capacity  $\geq$  three 660L bins, or  $\geq$  8 x 240L bins, or any combination of bins  $\geq$  1,980L must comply by **1 July 2028**
- Relevant premises with residual waste capacity  $\geq$  660 litres in a single bin, or  $\geq$  three 240-litre bins, or  $\geq$  720 litres in total for any combination of bins, must comply by **1 July 2030**

Find out if and when your business needs to source separate using the [NSW EPA FOGO calculator](#).



### Did you know?

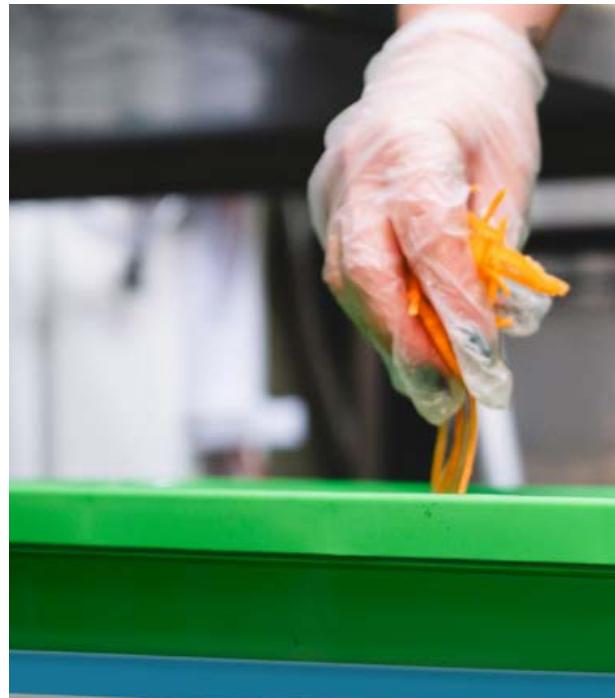
[NSW EPA Bin Trim App](#) is a free tool funded by the NSW EPA to help businesses track and reduce waste. The app allows you to conduct audits, record waste volumes, and develop an action plan to better manage waste.

### Exemptions from the FOGO mandates:

Under the new rules a business that meets the EPA thresholds for food waste recycling will need to seek an exemption from the EPA if they choose not to use a separate bin and collection service. Your business will need to demonstrate that no food waste is going to landfill through your onsite processing practices.

To support a smooth and practical transition toward FOGO mandate, the NSW EPA has established a set of time limited exemptions. These exemptions are designed to give councils and businesses flexibility as they build the infrastructure, systems, and capability needed to meet the FOGO mandates. The EPA may amend or revoke exemptions earlier if needed.

Visit [NSW EPA Exemptions from the FOGO mandates](#) for more information and exemptions



### What can I put in the food waste bin?



Image: EXP

# Why 2: Profitability and big picture

## Managing Food Waste

Many hospitality venues are feeling the pressures of the current skills shortage and cost of living crisis. By managing food waste, your business can reduce future food waste removal costs, improve menu efficiency and business operations, reduce your carbon footprint, and divert food waste for beneficial reuse.

**“On average, businesses see a 3% drop in food costs when they actively manage food waste. Less waste = more efficiency = better margins. ”**

**Natalie Bolt, The Table Food Consultants**



### Did you know?

Australia's hospitality sector contributes to **24%** of Australia's food waste (NSW, EPA) at an estimated **cost of \$8.8 billion**.

A key question for the hospitality sector is how much of that \$8.8 billion could be realised as profit instead – with effective food waste avoidance and management practices.

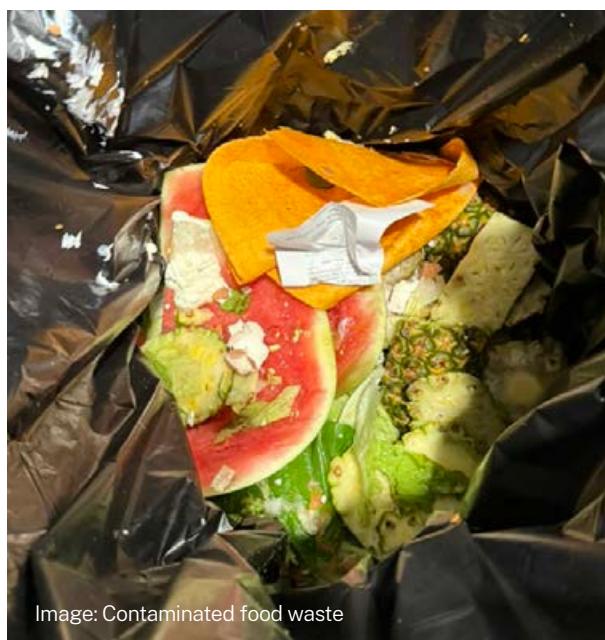
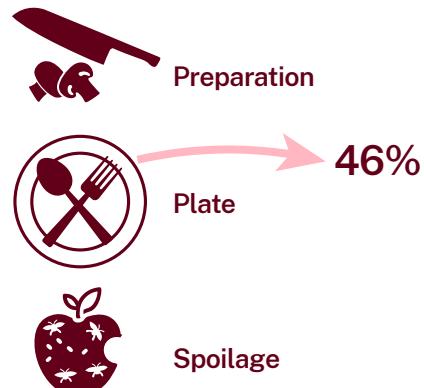


Image: Contaminated food waste

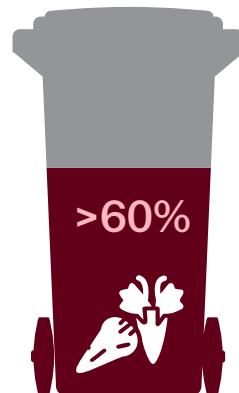
In hospitality venues, the three key streams of food waste are preparation (prep), plate and spoilage with plate waste being the biggest contributor at 46%. The biggest contributors to plate waste are large portion sizes and customer over ordering (Kane, 2021).

### 3 key streams of food waste



Research further indicates that in Australian cafés and restaurants, a significant portion of food waste ends up in the bin. Many cafés report that over 60% of their waste/bin volume is food scraps. This underlines the importance of food-waste reduction efforts in hospitality sector.

### Food waste



**“Your business can save costs on waste disposal to landfill, improve business operations, reduce your carbon footprint and divert food waste for beneficial reuse. Separating food waste from general waste is good for business. ”**

**Gus Maher  
Chair of Hunter Culinary Association**

# Why 3: Build your business brand

For many chef's in the Hunter Region, a focus on local and seasonal produce and creating innovative ways to use every part of ingredients has shaped their kitchen culture and delivered unique guest experiences.

## Case Study

### **EXP: Australian Good Food Guide Regional Restaurant of the year for 2026**

For over 10 years, Frank Fawkner has built a culture of care at EXP. With sustainability at the fore, his kitchen embodies whole of product values: cooking everything from scratch and exploring a wide range of fermentation practices.

Ingredients for dishes at EXP are always seasonal, and when paired with ferments from the EXP larder, offer intense and interesting flavours, and a sought after guest experience.

Frank's culture of care delivers a unique dining experience, lower food costs, and a thriving team which he is proud of. Guests are attracted by the restaurants quality and reputation. Owner Frank, says 'making our menu from scratch, using every part of the ingredient and cultivating a culture of care helped establish our reputation and build our team engagement.'

*“We minimise waste and repurpose by-products into house made condiments, sauces, and seasoning's. Our commitment to sustainability is woven into everything we do. Everyone should care about sustainability, and it starts from the top.”*

**Frank Fawkner, EXP**



Image: EXP

# Winding Down Wineries Food Waste

## About the project

Winding Down Wineries Food Waste (WDWFW), is a pioneering project to reduce food and organic waste in the Hunter Valley wine region, delivered by Go Circular under the Business Food Waste Partnerships Grants by the NSW Environment Protection Authority (EPA). It aims to create a replicable model for waste reduction that can be applied across wine regions throughout Australia.

The project identifies and showcases innovative food waste solutions already in use by Hunter Valley wineries and restaurants, fostering collaboration, celebrating local leadership, and scaling successful practices.

At its heart, Winding Down Wineries Food Waste is about building a local network of businesses working together on regenerative solutions, boosting efficiency and advancing the NSW Government's food waste reduction goals. These activities will ultimately strengthen the Hunter Valley's position as a leader in sustainable hospitality.

Throughout the project, co-design workshops and site visits have generated solutions to food waste that not only minimise food waste, but maximise profitability, collaboration, and knowledge sharing.

## Collaboration

A key insight from the Winding Down Winery Food Waste project was the value of collaboration across the local hospitality ecosystem. For circular economy principles to take root, businesses cannot act in isolation, success depends on place-based, cooperative solutions.

Throughout the project, participating businesses demonstrated strong collaboration on multiple levels, from jointly exploring the most efficient ways to manage food waste, to considering shared procurement practices that reduce costs and environmental impact.

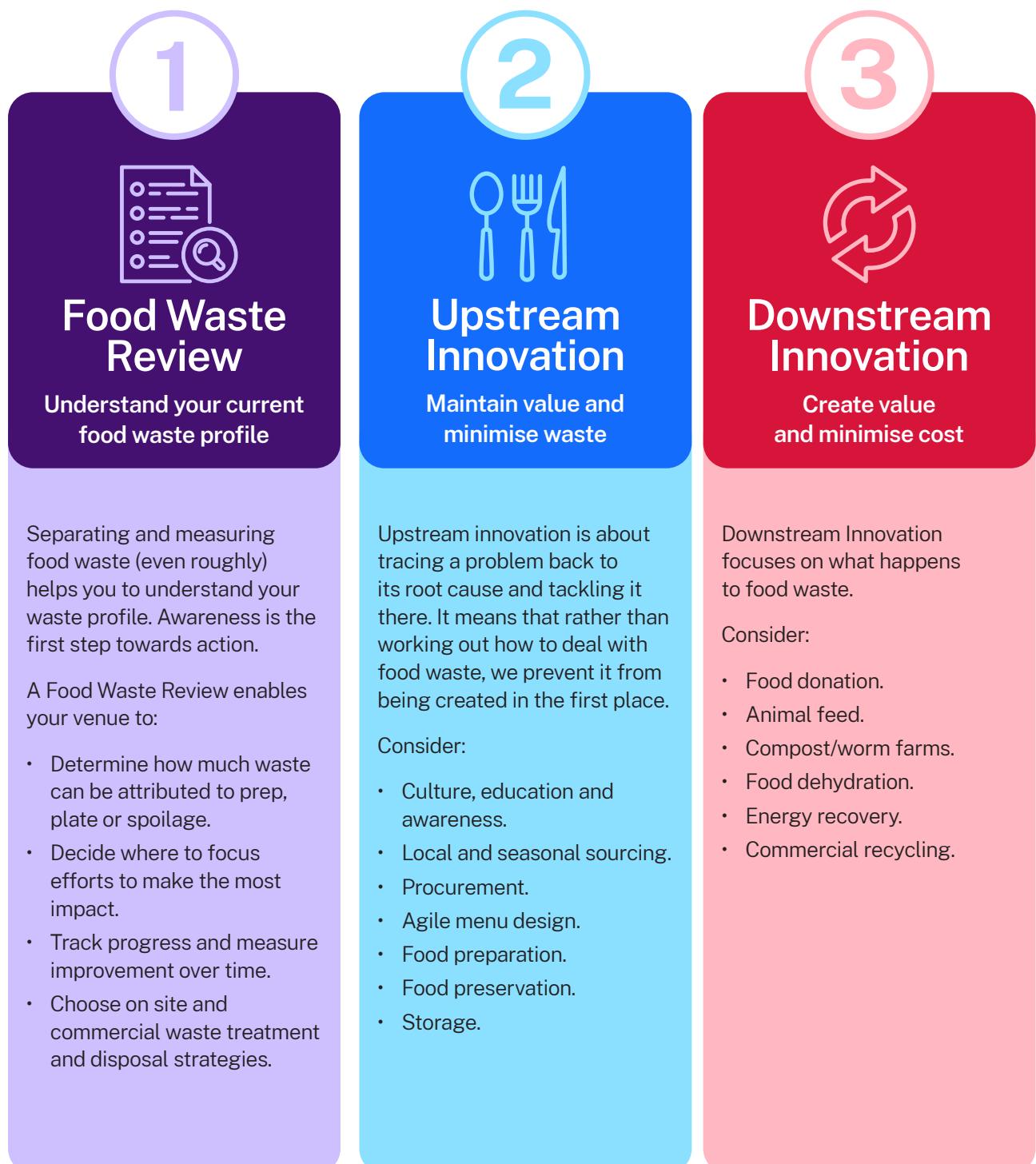
The project also fostered a sense of collective pride and learning, as venues invited one another to showcase best practices.

Building on this spirit of collaboration, the WDWFW project translated collective learnings into practical actions that any hospitality business can adopt in wine regions. Through shared experiences, site visits, workshops, and feedback from participating venues, common challenges and opportunities were identified, from preventing food waste in kitchens to improving recovery and recycling systems. These insights informed the development of a simple, practical framework to guide businesses at different stages of their sustainability journey.



### 3-Stepped approach

The Toolkit takes a 3 step approach to data collection, upstream innovation for food waste prevention/avoidance and downstream innovation for food waste management.



## Upstream and downstream innovation

In a circular economy, we prioritise upstream interventions. Upstream solutions trace a problem back to the root cause and tackle it there. Rather than working out how to deal with waste, we work to avoid waste in the first place. For waste that cannot be mitigated upstream, we rely on downstream interventions to responsibly manage materials.



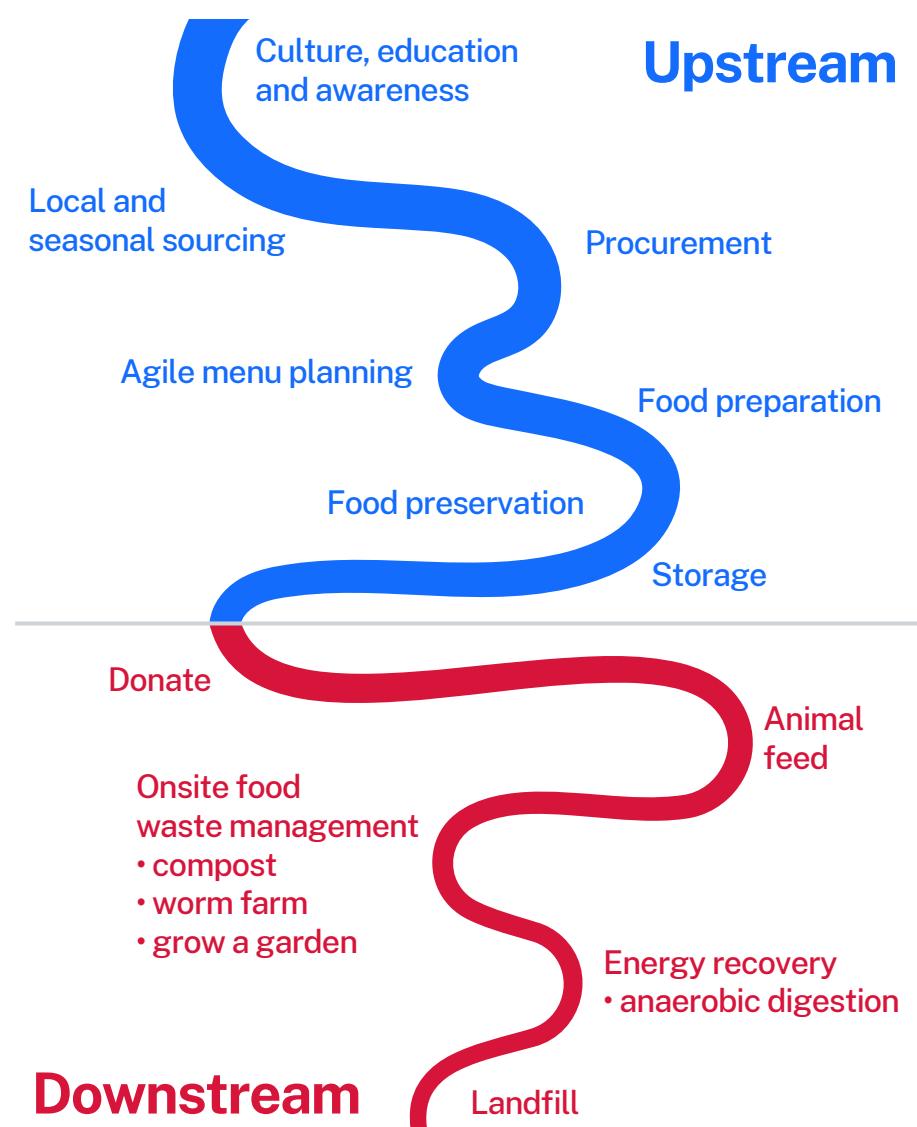
### What is a circular economy (CE)?

*“An economic system that uses a systematic approach to maintain a circular flow of resources, by recovering, retaining or adding to their value, while contributing to sustainable development.”*

ISO: The International Organisation for Standardisation: ISO 59004

Through the WDWFW project, we have divided food waste management solutions into upstream and downstream innovation. Looking at both perspectives helps businesses rethink their supply chains, packaging, and overall business models to prevent and design waste out of operational systems.

- Upstream strategies capture food before it becomes waste.
- Downstream strategies choose optimal strategies for your venue to process waste.



## How to separate your food waste

Good source separation makes everything else work. It reduces contamination, keeps staff safe, saves time, and makes food waste recycling solutions possible and easier. Go Circular has developed training materials to help, including [Managing your food waste PowerPoint slides](#) and a [food waste separation poster](#).

### 1. Train staff and monitor contamination

Education and training for all staff is critical to the successful separation of food waste and the reduction of contamination. Training should be simple, role specific and ongoing, covering what can and cannot go in the food waste bin.

Key themes for food waste education and training for hospitality businesses include:

- Why food waste? It is important that all stakeholders understand the motivations for reducing food waste.
- Upstream food waste mitigation strategies focused on “avoiding and reducing” food waste during procurement, storage, preparation and service.
- Downstream food waste management strategies focused on donations and accurate source separation of food waste from other waste streams.
- What can and cannot be included in a food waste collection.
- The impact of contamination on commercial composting outcomes.

#### How to deliver the education and training:

- Team meetings.
- Q&A sessions.
- Tailored resources (i.e. posters, flyers, video recordings, webinars).
- Staff competitions (i.e. knowledge tests, quizzes).
- Email correspondence (i.e. adding educational messages to payslip emails).

### 2. Separate food waste at the point of generation

Food waste should be separated where it is created, including food preparation areas, plate scrape stations, coffee and bar areas. This reduces double handling and contamination.

**“Food waste has value, and separating it properly makes a real difference.”**

**James, Estancia Adina**

### 3. Remove packaging before disposal

All packaging, including plastic, labels, stickers and wraps, must be removed before food is placed in food waste bins. Packaging contamination limits recovery options.



#### Tip!

Regular visual checks of bins, taking photographs of contamination sources to help identify contamination early and reinforce correct behaviours.

### 4. Use small, fit-for-purpose containers

Food waste is dense and heavy. Smaller containers reduce manual handling risks and are easier to move and clean. Many restaurants in the Hunter Valley have repurposed their 15L buckets for food waste separation.

### 5. Support correct separation with clear bin placement and signage

Food waste bins should be clearly labelled and co-located with general waste bins to support correct use by all staff, this can be included in your staff training.



# Step 1: Food Waste Review

## Understand your current food waste profile

Completing a food waste review is important. It makes the invisible visible, and it helps you to see food waste you may not have noticed before.

To reduce food waste effectively, it is important to first understand how much waste is currently being produced. Collecting reliable baseline data on the types, and volumes of food waste generated within the business helps build a clear starting point.

Measuring food waste output will:

- Provide an estimated volume of food waste generated by the business.
- Highlight opportunities for other waste streaming interventions (i.e. glass, co-mingled recycling).
- Establish a baseline, from which to measure progress against.

### Baseline Data Collection

Baseline data collection is vital to inform planning and ensure that proposed solutions meet the needs of the business. If done well, baseline data collection will help you to reduce costs. There are two main methods for your food waste review and data collection.



#### Tip!

It is important to note that food waste produced during an audit is often less than normal levels, due to pressure placed on hospitality to produce a limited or reduced waste output, and when it is not a busy season.

Please note this toolkit focuses only on food waste data. However, businesses seeking a complete picture of their inputs and outputs are encouraged to review procurement data. Energy and water use are outside the scope of this toolkit.

## Analyse data – identify food types

Once the data is collected, you need to review and understand what it means for your business. By finding out where most food waste happens, you can direct actions to reduce waste in that area. For example, if there is mainly plate waste, your team can explore portion sizes and menu design options.

### Identify food types

Identify what types of foods are being thrown away.

- Visually assess food types e.g. look in bins to see if there are large volumes of a single ingredient.
- Ask staff what they throw away most. Your kitchen team will be able to speak to prep and spoilage waste and your service staff will be familiar with items often left on customer plates.

### Identify solutions

Developing solutions is an opportunity to engage your team in innovative and creative problem solving. In Hunter Valley venues, this creativity and innovation often resulted in unique dishes and elevated customer experiences. Based on the data review, you can:

- Provide food waste separation bins in the right locations to collect:
  - Prep Waste.
  - Plate Scrapings.
  - Spoilage.
- Train all team members (kitchen, FOH, cleaning) to use the food separation bin system to reduce contamination.



You can build reviewing waste and identifying solutions into your team culture via on-going dialogue between kitchen and service staff, team meetings and other existing or new communication channels.

Image: James, Estancia Adina

## Baseline Data Collection Frequently Asked Questions

### Is there any technology that can help with the process?

- [Bin Trim App](#) - A free tool funded by the NSW EPA to help businesses track and reduce waste. The app allows you to conduct audits, record waste volumes, and develop an action plan to better manage waste.
- Spreadsheets like Microsoft Forms or Google Sheets.

### How many bins need to be audited?

It is recommended to audit all waste bins that are regularly used. This ensures you capture a representative snapshot of total waste generation and composition.

If you have a large number of bins, you can select a representative sample, such as a few key bins from high-waste areas (e.g. kitchen, preparation stations) and extrapolate results.

### What if we don't have food waste bins yet?

You can still collect data by sorting and weighing/estimating food waste separately during the audit period. This will help justify the introduction of a food waste service or identify potential for reduction before bin service changes.

### Yes, I want more data?

As the wine region is a popular tourist destination, several businesses expressed interest in capturing more data during peak periods (such as wedding seasons, holiday seasons, functions).

A detailed data collection sheet was developed for this purpose. You can download [Winding Down Winery Food Waste Data Forum](#).

In addition, measure your waste on an on-going basis or at particular points like the introduction of a new menu.

### How long should the baseline data collection period last?

It is suggested to collect the data for 4-6 weeks.

### How do we measure liquid waste, like cooking oil?

If cooking oil waste is significant, you can weigh it in sealed containers or record volume (litres) and convert to weight (1L ≈ 1kg for water-based liquids). Note it separately in your reporting.

### How can we account for special events or seasonal changes?

Make a note of special events during your audit. If you have frequent catering events, consider doing two audits: one during a typical period and one during high demand of catering for comparison.

### Do we need to audit every day?

Ideally, you should collect data on all days you operate for 4-6 weeks, including weekdays and weekends to account for service variations. If this isn't practical, auditing a mix of busy and quiet days will still provide useful insights.

### Use your data to analyse:

- Are there times of the week or events that produce excessive waste?
- Waste changes at the introduction of a new menu—offering timely opportunity to re-design.
- The food cost associated with your waste streams. Calculate the average cost of food procurement per kg and compare with the average food waste per kg to find estimates of the cost of food waste. E.g. 45L of food waste daily at \$10/kg = ~\$450/week. That's nearly \$24,000/year in preventable loss!
- The disposal cost of your waste streams. Calculate bin weight costs per lift and compare with the average weight of food waste.

## Methods for Measuring Waste

You can either weigh each waste stream or conduct a visual assessment.

### Weight Based Waste Audit

The most accurate way to determine food waste output is by weight, using digital scales or bin-weighing systems. It is important to note that this method is time intensive and requires considerable resourcing.



#### How to

##### 1. Prepare equipment

Use tabletop or floor scales to manually weigh food waste.

##### 2. Define audit scope

Decide on the duration of the audit (daily is suggested for the first 4-6 weeks); Decide on which bins will be audited (e.g. kitchen, back of house).

##### 3. Weigh and record

Weigh and record the weight, date and any notes (i.e. 50% cooked food; 10% coffee grinds; 30% bread or preparation food waste).

##### 4. Repeat and monitor audit data

Repeat and monitor audit data for 4-6 weeks and analyse the data to identify patterns, peak waste times (e.g. wedding seasons, school holidays; identify contamination issues.)

##### 5. Review and communicate findings

Use findings to identify reduction opportunities such as menu adjustment, stock management, or to co-plan menus with customers for weddings and functions.

### Weigh

Date:

Waste stream	Weight	Largest contributor	Food types	Notes/solutions & ideas
Prep	40kg	25%	Vegetable trimmings	Don't peel, or peel lighter
Plate scrapings	100kg	62.5%	Garnish, bread, chips, salad; meat	Reduce service sizes, offer alternatives.
Spoilage	20kg	12%	Tomatoes - too old	Improve stock monitoring. Add to broths or sauces.
<b>TOTAL:</b>	<b>160kg</b>			

## Visual Waste Audit



A visual waste assessment is a more practical and less resource intense method for measuring food waste. This method involves estimating waste volumes based on visual cues and bin fullness levels.

### How to

#### 1. Prepare equipment

Have clipboards or audit sheets or tech ready for recording observations.

#### 2. Define audit scope

Decide on the duration of the audit (daily is suggested for the first 4-6 weeks); Decide on which bins will be audited (e.g. kitchen, back of house).

#### 3. Observe and estimate

- Estimate the percentage split by waste type (e.g. 50% food waste, 30% cardboard, 20% plastics).
- Estimate bin fullness (e.g. bin is 75% full), to calculate approximate total waste volume.
- Record how often bins are emptied.
- Record the data and time that auditing occurred.

#### 4. Repeat and monitor audit data

Repeat and monitor audit data for 4-6 weeks and analyse the data to identify patterns, peak waste times (e.g. wedding seasons, school holidays; identify contamination issues.)

#### 5. Review and communicate findings

Use findings to identify reduction opportunities such as menu adjustment, stock management, or to co-plan menus with customers for weddings and functions.

## Visual

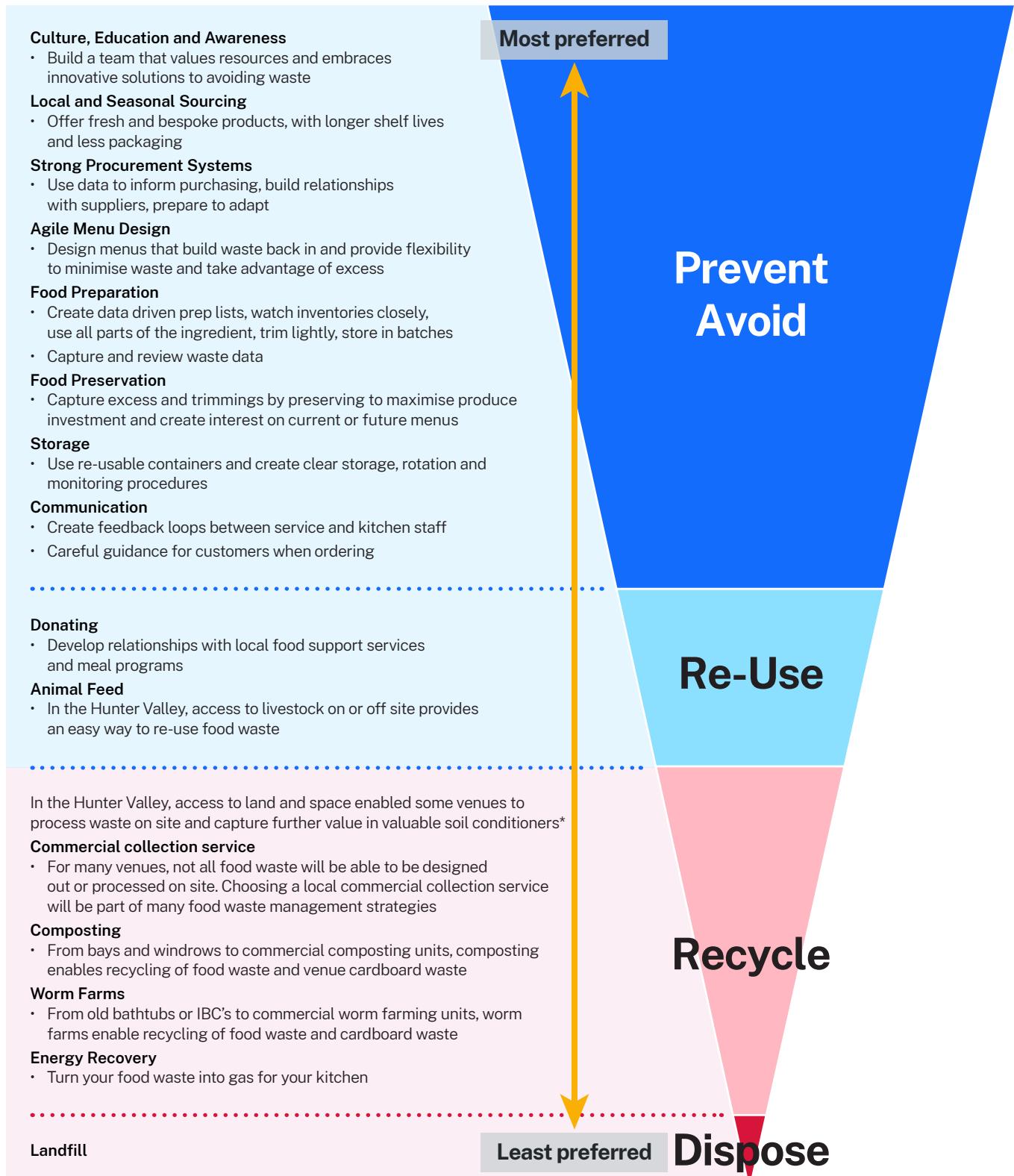
Date:

Waste stream	Bin volume x how many times it was emptied	Largest contributor	Food types	Notes/solutions & ideas
Prep	75ltr x 1	25%	Vegetable trimmings	Don't peel, or peel lighter
Plate scrapings	75ltr x 2.5	62.5%	Garnish, bread, chips, salad; meat	Reduce service sizes, offer alternatives.
Spoilage	75ltr x 0.5	12%	Tomatoes - too old	Improve stock monitoring. Add to broths or sauces.
<b>TOTAL:</b>	<b>300ltr</b>			



## Food Waste Hierarchy

This Food Waste Hierarchy model summarises food waste minimisation and management strategies most relevant to Wine Country venues.



\*Under the new rules a business that meets the EPA thresholds for food waste recycling will need to seek an exemption from the EPA if they choose not to use a separate bin and collection service. They will need to demonstrate that no food waste is going to landfill through their onsite processing practices.

# Step 2: Upstream Innovation

## Retain value and minimise waste

### 1. Culture, Education and Awareness

Educated, resourced, and engaged hospitality teams have the power to ignite innovation, drive profitability, and deliver a great customer experience.

- **Integrate waste awareness into recruitment and training:** Minimising waste is an on-going conversation. Routinely identify and review practices and expectations that help design out food waste.
- **Build a culture of resourcefulness:** Foster values that prioritise resources and embrace innovative solutions for minimising waste. Celebrate team achievements and waste champions and share wins to maintain momentum.
- **Equip teams for success:** Provide appropriate training, equipment and source separation facilities so staff can confidently and effectively reduce waste.



### Case Study

#### Amanda's on the Edge: A Culture of Conscious Cooking

For Michael Haines, head chef at Amanda's on the Edge, cooking is as much about respect as it is about flavour. Raised on the produce from his family's backyard veggie patch, he brings a deep-rooted understanding of how precious ingredients are, and a drive to use every part of them.

Michael's approach is built on Integrated Menu Design: ingredients are thoughtfully planned across multiple dishes, ensuring that every element, from root to stem, skin to seed, has a place on the plate, or even over at the bar.

High plate waste is a signal to adjust portion sizes, rework dishes, and refine team skills.

Waste isn't just about ingredients, it's about mindset. At Amanda's on the Edge, new chefs are taught the discipline of scraping prep bowls clean, even 10 grams matters.

Michael takes the time to explain the why behind each dish and cooking method, fostering a kitchen culture where generosity is balanced with intention, and where values drive creativity. He encourages his team to bring the best lessons from every kitchen they've worked in and to begin shaping a style of their own.

*“Doing the right thing and living by your values makes coming to work feel good. It's what keeps me loving what I do.”*

**Michael Haines**  
**Head Chef, Amanda's on the Edge**

## 2. Local and Seasonal Sourcing

Hunter Valley venues repeatedly spoke to the financial value of engineering their menu from the ground up, literally, local ground up.

- **Longer Shelf Life:** Fresher food means less spoilage and waste
- **Peak-Season Flavour:** Better taste-without premium pricing
- **Differentiate:** Bespoke local producers deliver unique ingredients that can set menus apart.
- **Minimal Packaging:** Less or returnable packaging, lower waste disposal costs.

Partnering with local producers builds resilience through connection to community, strong supply chains, and rich storytelling opportunities that drive customer loyalty and brand growth.

- **Trust and Resilience:** Knowing your growers builds trust and fosters collaborative, long-term relationships that support consistent quality and supply.

• **Team Engagement:** Inviting your team to meet producers, on site or through visits, deepens their knowledge and pride, leading to more authentic, engaging guest interactions.

• **Elevated Guest Experience:** Customers value menus that reflect the character of your region. Locally sourced products create memorable narratives, stories of people, provenance, and passion that set your venue apart.

## 3. Procurement

Strong systems in procurement are the foundation for reducing waste, improving efficiency, and protecting profit, while creating a culture of creativity and innovation that delivers fresh and interesting flavours.

- Use sales data, booking trends, and team insights to forecast accurately and avoid over-ordering.
- Choose suppliers who offer flexibility in volume and delivery frequency.
- Build in resilience by developing relationships with a range of suppliers enabling your business to adapt quickly to produce opportunities or challenges.



Images: MJK Creative

### Case Study

#### The Wood Restaurant, Brokenwood

At BrokenWood, the Wood Restaurant sources fresh, local produce to support local suppliers and reduce packaging waste.

Executive Chef Sean Townsend, has curated a menu focusing on local and seasonal produce, with synergy flowing between plate and glass. The functions menu has been designed to meet customer needs while minimising food waste.

**“We are mindful of our environmental impact, and for unavoidable food waste, we use an on-site worm farm. The vermicast harvested from the worm farm is then composted back onto our kitchen gardens to grow herbs and edible flowers.”**

**Sean Townsend, Executive Chef**

## 4. Agile Menu Design

Agile menus are a built-in safety net, helping venues adapt to seasonal shifts, product availability, fluctuating costs, and unpredictable customer demand while reducing waste and protecting profit.

- **Plan with Purpose:** Identify trimmings and surplus when menu planning and design them into secondary dishes or preserve for future use.
- **Be Descriptive, Not Prescriptive:** Use flexible language in dish descriptions so ingredients can be swapped based on availability and price, without compromising guest expectations.
- **Leverage Specials:** Move excess, preserved, or re-purposed ingredients through specials that elevate the guest experience and clear inventory.
- **Cross-Utilise Ingredients:** Feature key ingredients across multiple dishes to improve rotation, reduce prep time, and maximise efficiency.
- **Feedback Loop:** Maintain open communication between kitchen and front-of-house to flag uneaten components, adjust portions, and redesign menu items that underperform.

Here are some examples of how Hunter Valley venues ‘Plan with Purpose’ to create other menu items and pantry staples, maximise their spend on produce and reduce food waste.

Waste Item	Intervention Idea	Value / Benefit
Onion and Garlic Skins (Irongate)	Dehydrate and grind into a spice rub for meat and potatoes	Reduces waste, maximises spend, flavour driver
Citrus Husks (Harkham)	Oleo Saccharum, lemon syrup	Reduces waste, maximise spend, topper for desserts and cocktails
Seasonal Gluts (Harkham)	Fruit preserved as cocktail syrups	Maximises inexpensive or free produce, builds local relationships, menu point of interest
Cream (EXP)	EXP make their own butter, utilising buttermilk in dressings and desserts	Flavour driver, maximise spend, create delicious desserts
Fish Scraps (EXP)	Fish scraps are fermented to become Garum	Reduces waste, maximises spend, flavour driver, menu point of interest
Banana Peel (EXP)	Banana Vinegar	Flavour driver, maximise spend, menu point of interest
Fruit Trimmings (The Deck)	Dehydrated for dessert garnish	Reduces waste, maximise spend, add colour, texture and flavour
Bones and Veg Trimmings (all)	Stock, broth	Flavour driver, maximise spend
Vegetable Trimmings (Estancia Adina)	Pickles, sauces, stocks	Reduces waste, maximise spend, flavour driver
Seafood Trimmings (Estancia Adina)	Fish Stock – Bisque	Flavour driver, maximise spend
Animal Fat (Estancia Adina)	Rendered to use as cooking fat	Reduces waste, maximises spend, flavour driver

Table adapted from Table Food Consultants [Trash to Cash Table](#)

## Case Study

### Estancia Adina: Designing Waste Out

At Estancia Adina, food waste is considered a cost that can be actively managed to improve profitability.

This mindset influences both purchasing decisions and menu design. Waste awareness prompts chefs to request custom trims from the butcher to avoid unnecessary fat waste, swap out high-waste broccoli or cauliflower for more efficient broccolini, and preserve or repurpose excess and trimmings into other menu items or pantry staples

What waste remains becomes feed for team members chickens.



## 5. Food Preparation

By scaling prep, utilising up to date sales and inventory data, building in flexibility, and maximising every part of every ingredient, kitchens become more efficient, more creative, and more profitable — and minimise waste.

- Watch inventories closely and act quickly to use or preserve produce nearing end of shelf life.
- Use up to date inventory, sales trends and booking forecasts to inform prep lists.
- Create a culture where trimmings, imperfect produce, and surplus are automatically reimagined into new dishes or preserved.
- Train staff to trim lightly and prep with yield in mind.
- Store prep in batches to enable easy preservation if service is slow or when excess occurs at functions.

## 6. Food Preservation

Turn surplus into shelf life. Techniques like fermenting, pickling, curing and drying:

- Extend ingredient life.
- Encourage skill development and engagement on team.
- Add value and interest to menus.
- Celebrate resourcefulness and innovation and boost your bottom line.

## 7. Storage

Prepare a storage system that protects produce and preserves its value.

- Maintain clear systems for inventory, mis en place, food rotation, and labelling.
- Schedule equipment maintenance and fridge temperature checks to avoid breakdowns.
- Use reusable containers to reduce waste and keep your storage system efficient.

## Case Study

### Replacing single-use containers



Many venues have replaced single-use containers with reusables and cryovac bags. Baume and Irongate often order proteins in service sizes and individually cryovac. While cryovac is still a waste stream, it does reduce waste volume and can minimise food waste by enabling better portion control and extended shelf life.



# Step 3: Downstream Innovation

## Create value and minimise cost

### 1. Donate

Pathways to donate food waste might include Food Rescue Organisations like Foodbank, OzHarvest and Second Bite, which supply recovered food to charities, or building direct relationships with local food relief services and community meal programs.

Considering who else in your community could use and value excess edible food not only prevents waste but also helps strengthen local connections, engage and inspire teams, and offers a good story to tell your guests.

### 2. Animal Feed

Several Hunter Valley venues keep animals on site to entertain guests while putting food scraps to good use. In regional settings, repurposing food waste for animal feed is a unique and rewarding opportunity to close the loop and reduce landfill.

### Case Study The Deck, Lovedale: Animal Feed

At The Deck at Lovedale, kitchen scraps are transformed to animal feed to share amongst 2 Alpacas, 2 pigs, 1 goat, 3 sheep and flocks of ducks, geese and chickens.

Several other venues send food scraps home with staff members to back yard chickens and even pigs.

Some businesses work with local farmers, who pick up their food waste and feed their livestock.



### Tip!

#### Even food waste has value

When 'managed on site' via compost, worm farm facilities, dehydration or as animal food, food waste becomes a valuable soil amendment for kitchen gardens, vineyards or potentially to share with suppliers.

Making sure food waste is not contaminated by general waste ensures it is safe for composting, worm farms and feeding to animals.



### 3. On Site Management Options



Under the new FOGO mandate rules a business that meets the EPA thresholds for food waste recycling will need to seek an exemption from the EPA if they choose not to manage food waste onsite. They will need to demonstrate that no food waste is going to landfill through their on site processing practices.

#### Compost

Both compost and worm farming systems require a balanced mix of nitrogen-rich materials (such as food scraps) and carbon-rich materials (like paper, cardboard, or dry garden clippings). These options allow multiple waste streams to be diverted from your venue's rubbish collection, reducing disposal costs and minimising what ends up in landfill. Build your own composting system, or purchase equipment like bins, tumblers and aerators.

##### Pros:

- A great choice for venues that produce large volumes of food, cardboard or garden waste.

##### Cons:

- You are only limited by time, materials and space.
- A well-managed compost won't smell, however you'll ideally situate it away from the restaurant.
- Windrows and compost bays require turning, but break down quickly.
- Other options like the Johnson-Su, Tumblers, Aerated Static Piles, Aerobin or the classic backyard Gedye bin require minimal effort, but do take longer to break down.

Learn more: [composting guide for businesses](#)



#### Worm Farms

Purchase neat, compact and vermin proof worm farming systems or build a fleet out of discarded bathtubs or International Bulk Carriers (IBC's). Composting and worm farming initiatives are empowering practices to engage hospitality teams and inspiring stories to share with customers and community.

##### Pros:

- Can be easy to manage.
- Produce valuable worm tea and vermicast.
- No odour and team members love 'feeding the worms'.

##### Cons:

- Only processes up to 10L of food waste and 10L of carbon a day, so multiple units may be required.
- Worm farms require a level of care to ensure the right type and volumes of food scraps, carbon and water are added and the farm is located a cool and shaded environment.

Learn more: [worm farms](#)

Note, cardboard and paper need to be wax-free and shredded or broken down before adding to compost or worm farms.

## Dehydration

Dehydration and mechanical composting units can reduce food waste volume by up to 90%, making a huge impact on commercial food recycling frequency and costs.

### Pros:

- Storage of dehydrated food waste is easy and mess free and for some units, the digestate can be rehydrated and added to compost.

### Cons:

- A more significant up front financial investment.
- On going use of electricity.
- Potential need for a DA and for some units.
- The digestate produced may still require commercial disposal.

Learn more: For a range of units, see [Small Scale Recycling Equipment Catalogue | BusinessRecycling.com.au](https://www.businessrecycling.com.au/small-scale-recycling-equipment-catalogue/)

Businesses can apply for the [NSW EPA's Bin Trim program](#), which offers 50% rebates to help businesses assess their waste and invest in equipment such as composters, dehydrators, and organics bins, supporting cost effective and sustainable waste management solutions.

## Food to Soil

Many Hunter Valley venues tend gardens both to service kitchens and enhance surrounds. Compost, worm castings and worm tea can all be incorporated into garden operations, as can coffee grinds. When spread directly, they boost nitrogen in the soil, acting as a slow release fertiliser and also deterring pests.



## Energy Recovery

Anaerobic digesters convert food waste into bio-gas for energy and nutrient rich digestate for soil. Using biogas for on site electricity generation helps reduce reliance on the grid, lower energy costs, and cut greenhouse gas emissions, creating a closed-loop system for managing food waste sustainably.

## Commercial Collection Service

A commercial collection service will see your food scraps professionally processed into commercial compost which will be returned to soils to grow more food. Minimise collection costs by minimising and / or dehydrating food waste and avoid additional charges by ensuring downstream food waste is not contaminated by general waste or recyclables.

The commercial collection services are limited at the moment, but are expected to increase over time as the mandates roll out. Please reach out and check with your current collection services providers on food waste collection services.

The current providers are: [Circular Organics](#) and [Loop Organics](#).



## Continuous improvement

Reducing food waste is not a 'set and forget' activity. Adopting a continuous improvement mindset is essential to long term success. Key considerations include:

- Finding opportunities for feedback loops.
- Integrating ongoing staff training and development into your business model to upskill and innovate.

## Ideas for continuous improvement

Conduct spot checks of your food waste bins. Visual audits will help you to identify areas of improvement.

- What percentage of the food waste bin is unavoidable food waste? (i.e. coffee grounds, fruit rinds.)
- What percentage of the food waste bin contains potentially avoidable food waste? (i.e. expired produce, vegetable peels that could be repurposed).
- Can you use your vegetable peels to make vegetable stock?
- Do you have a system in place to minimise expired stock?
- Can you introduce a specials menu that responds to surplus stock?

# Full circularity solutions

Businesses in the Hunter Valley region are already leading the way with full circularity practices and food waste avoidance innovations.

## Muse

**Owner and Chef, Troy Rhodes Brown**  
**Circularity at Muse**



With one boot in the kitchen, the other in his garden, and a workshop in his mind re-imagining the two it's only natural that Troy's offering at Muse is warm and personal.

Troy's respect for the character and provenance of ingredients is mirrored in his kitchen garden, which is almost entirely built from reclaimed materials.

So much energy and intention has gone into every piece of Muse that an opportunity is rarely missed to innovate, to persevere and preserve, to test boundaries and dive ever deeper into cultivating his guest experience. For some, these opportunities might be discarded as 'offcuts'.

At Muse, the life cycle of everything is considered. Crushed oyster shells and remaining food scraps return to his garden beds as compost; paper menus are shredded and added to worm farms and an impressive library of décor containers enables boxes to be returned immediately to suppliers and single use containers to be eliminated.

For Troy's team and so many of his protégés spread throughout the Hunter Valley, their ethos is to value resources. Even when you think they're spent, perhaps they're not, perhaps their best value is yet to be re-imagined.



Image: Margan



## Case Study

### Margan: Circularity in practice

For Margan Estate, everything starts and ends with soil.

Margan has been practicing circularity for generations, growing their own produce, composting food scraps, and feeding waste back into the vineyard and farm.

These examples show that circular approaches not only reduce waste but can also create new revenue streams and strengthen community connections.

Over 90% of the restaurant's menu is grown on site, and food waste has long been carefully separated. Combined with manure from neighbouring farms, biochar made from vine trimmings, and carbon sourced from shredded cardboard boxes, these inputs are transformed into a living compost that nourishes their farm.

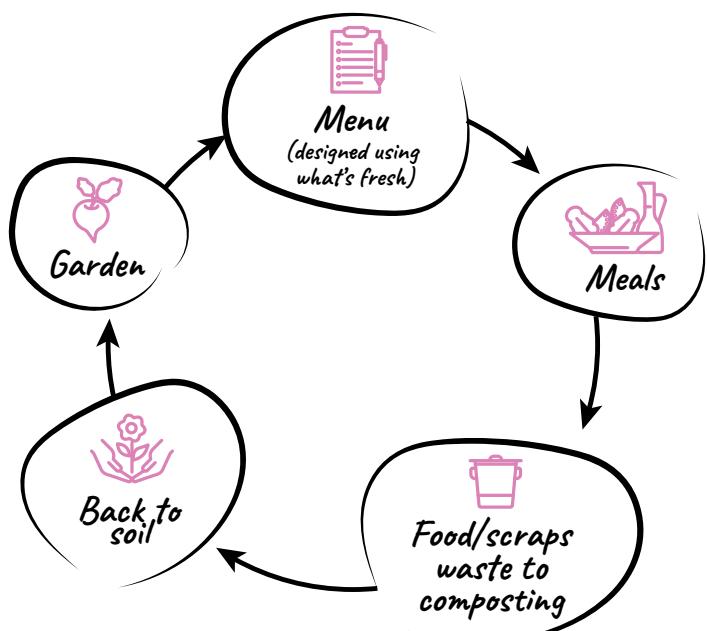
This regenerative cycle produces better, tastier grapes for their wines, as well as fruit and vegetables for the restaurant.

The result is a resilient, award-winning farm, winery, and restaurant built on a self-perpetuating circular model that proves sustainability and excellence can thrive together.

**“You don’t run a marathon in one go. You start with one kilometre, then five, then ten.”**

**Ollie Margan**

### Farm to fork at Muse and Margan Full circular





# A leading role in sustainability

The Winding Down Winery Food Waste Toolkit has been developed as a practical resource to support wineries with restaurants, and hospitality venues in the Hunter Valley to avoid, prevent, reduce food waste and improve waste management practices.

By implementing the strategies, templates, and case studies outlined in this toolkit, businesses can take meaningful steps toward improving resource efficiency, saving cost, and contributing to a more circular local economy.

This toolkit builds on the lessons learned through the Winding Down Winery Food Waste project, including successful collaborations with venues, councils, waste contractors, equipment providers, and our project partners such as Hunter Culinary Association, Hunter Valley Wine and Tourism Association, Cessnock Council and Loop Organics. It highlights that reducing food waste is not only environmentally responsible but also economically beneficial and achievable through small, consistent actions.

As the sustainability and circular economy continues to grow across the Hunter region, the WDWFW toolkit provides a foundation for ongoing engagement, capacity building, and innovation. By using and sharing this toolkit, hospitality businesses can play a leading role in transforming waste into value and ensuring the Hunter Valley remains a model for sustainable food and wine tourism.



Image: Brokenwood

Developed by Go Circular in collaboration with  
NSW EPA and Hunter Valley Hospitality sector.

Winding Down Wineries Food Waste, brought  
to you by the NSW Government through the  
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