

Zero Waste Toolkits for the Food Service Industry

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Agenda

(10 min) Background and context

(10 min) Small group activity - Tool review

(30 min) Presenting tools and debriefing group conversations

(10 min) Close and survey



Intros

Amber Barbella

Owner Operator at Diversion Designers



Molly Saylor

Owner and Principal at MKS Sustainability Consulting





Goals for this session

- Tell you about our zero waste toolkit project
- Share our favorite toolkits and tools
- Learn what you like about existing tools (and what you wish existed)
- For those in local government
 - Learn what you need in a toolkit
 - Provide you with resources you can share in your community or use to develop your own toolkit



Why did we get into toolkits?

- Increasing interest by local governments in providing tool kits to local restaurants
- Restaurants have expressed needs regarding technical resources to meet new compliance standards and customer expectations
- Many best practices and tools are applicable across many communities
- Local governments in small communities don't have time to provide technical assistance (and medium-size/large struggle too)
- Existing tool kits provide great tools but not all in one place



Our goal

Create a toolkit that local governments can provide to local food service businesses that is:

- based on restaurant feedback
- user friendly
- simple
- effective
- customizable



Why food service?

- Significant source of waste (food waste, recyclables, single use plastics)
- Increasing regulations impacting food service
- Opportunity to better communicate cost savings, operational efficiencies, and marketing opportunities



What toolkits exist already?

We reviewed 20 toolkits and selected our favorite tools as inspiration!

High-level takeaways:

- Great content exists
- Actual tools are harder to find
- Many toolkits are very dense



BEYOND PLASTICS HOLD the PLASTICS HOLD the PLASTIC, PLASTIC, PLASTAURANT'S GUIDE TO REDUCING PLASTIC

July 2022

EYOND PLASTICS / Bennington College, One College Drive, Bennington, Vermont 0520 BeyondPlastics@Bennington.edu / BeyondPlastics.org



HOTEL KITCHEN

Fighting Food Waste in Hotels

Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

RECYCLE COLORADO

What kind of tools are out there?

- Cost-Savings Calculator for Reusables
- Serviceware Purchasing Guide
- Other Cost-Savings Calculators
- Case studies
- Food donation guide and list of food donation organizations
- Information on state and local regulations
- Guidance on required reporting and reporting forms
- Waste audit guidance
- Guidance/tools for purchasing recycled materials
- Guidance on bioplastics

- Staff training materials
- Glossary of terms
- Training videos
- Waste tracking tools
- Bin Right-Sizing Guide
- Point of sale tools
- "First in, first out" materials
- Waste generator guide (i.e., list of haulers)
- Front of house & back of house blue and green bin implementation guide
- Front of house and back of house educational flyers
- Signage



Small group activity - directions

- Locate the packet at your table. Find the section highlighted. This is your table's tool for discussion. You can use handout with QR codes and links to see more of each tool online.
- **Discuss the first question** in the section for your assigned tool. This the question that generally asks for feedback on the tool "What did you think of the example?"
- Work through as many other questions as possible, making brief notes on the packet as you go. We will collect the packets and any written feedback is helpful.
- In 2-3 minutes, share back your general feedback on the tool and one to two other key points that came up in your conversation.



Our favorite tools - Reusable Calculator



Switching to a reusable product? Cost per reusable item: \$

Cost per each reusable item.

Set up cost: \$

Cost of the reusable product, including new equipment and/or infrastructure (ex. a dishwasher or storage space) you will need.

Annual ongoing costs: \$ Cost of periodic replacements due to loss or breakage; cleaning supplies; and estimated increases in bills (ex. electric, water).

Annual ongoing savings: \$ Ongoing cost savings such as reduction in waste hauling fees and reduced litter cleanup labor costs.

CALCULATE BREAKEVEN POINT, PAYBACK PERIOD, AND SAVINGS

Link to full tool:





Our favorite tools - Reusable calculator

What we saw in this tool

- Simple inputs.
- Possibly one-sided in some cases.
- Nice that it calculates additional cost for switching to more expensive products (for compostables).
- Great that it calculates what amount they would need to reduce to match current costs.

What businesses saw in this tool

- It's important to clarify if the purpose is for dine-in, take out, or both.
- Inputs need to be easy to use and information that is readily available.
- Be realistic about true costs associated with set up and maintenance of reusables.



Our favorite tools - Purchasing Guide



Product	Size	Material	Photo	Example Vendor
Acopa Customizable Mixing Class/Pint Class (24/Case) \$18.49	16 oz.	Glass		Webstaurant Store
Acopa Straight Up Customizable Collins Class (12/Case) \$15.99	11.5 oz	Glass		Webstaurant Store
Rustic Charm Customizable Drinking Jar/ Mason Jar with Handle (12/Case) \$11.99	16 oz	Glass		Webstaurant
Arcoroc Pub Can Glass Cooler (36/case) \$78.95	16 oz	Glass		Food Service Direct
Tumbler SAN Plastic. Louis?.Carlisle 581607 (6/Case) \$6.09	16 oz	BPA Free Plastic		Standard Restaurant
Tumbler. Blue. Thunder Group (6/Case) \$5.36	5 oz	Plastic		Standard Restaurant



Our favorite tools - Purchasing guide

What we saw in this tool

- Simple, clearly presented information.
- Mirrors supply catalogue formats.
- Practical for users with direct links.
- Shows photo examples.

What businesses saw in this tool

- It's critical that this information has local vendor resources.
- Diversity in service ware types is critical.
- Maintaining a simple layout with many options is important for usability.



Our favorite tools - Food waste prevention calc



	UNPROCESS	ED	PRE	-PROCE	SSED		
Category	Vegetables			When changing ingredient categories, be sure to select new item that			
Item	Artichoke						
Start Weight of case (lbs)	10			10		correspond to the new category.	
Case Price	\$:	10.00	\$		10.00	cutegory.	
Processing Detail	Artichoke Hea Edible Leaves Base						
Percent Yield (US Foods)*	40%			100%			
Yield Weight	4			10			
Plus Labor	\$	5.00	\$		-		
Total Price	\$	15.00	\$		10.00		
Useable Price / Pound	\$3.75			\$1.00			

Hourly Labor Costs (\$)	Prep Time Required (Cleaning, choppin drying, storing, etc.)		
\$ 10.00	30	Minutes	

* Pre-processed yield is set to 100%, unless otherwise altered

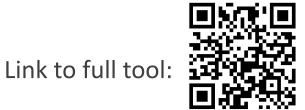
	SECONDARY USES				
	How much is	Most of the artichoke is not edible and would be challenging to repurpose. Artichoke leaves can be cooked and eaten			
	edible?	but the yield per artichoke is low. The heart of the artichoke is the only fully			
		edible part.			
s	Reduction Tip #1	Marinate leftover artichokes			
	Reduction Tip #2	Blend stems into soup			
	Reduction Tip #3	-			
	Sample Dish	Artichoke Stem Salad			
	Source	https://www.evankleiman.com/artichokes- dont-forget-the-stems/			
	What is my waste savings? (lbs.)	6.00			

End of Life Destinatio Once all other reduction tips have been used, send all lasting

food waste to value-added processing (if possible)

including composters, anaerobic digesters, or animal feed

Find your local composter through http://www.findacomposter.com/



Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

RECYCLE COLORADO

Our favorite tools - Food Waste Prevention Calc

What we saw in this tool

- Good concept, unclear how practical.
- Like that it analyzes costs to identify if buying pre-processed is better.
- Nice that it talks about what to do with stems, etc.

What business saw in this tool

- Chef's know how much they are spending on ingredients to price their menu. Use formatting and language they are used to.
- This tool, as is, is too much work for restaurants to use.
- The creative options for specials or menu add-ons with leftovers is useful.



Our favorite tools - Case Studies





Plastic water cups with reusable cups for dine-in Plastic utensils with reusable metal cutlery Wooden stirrers with metal spoons



\$974



· Disposable Paper Plates with **Reusable Metal Pizza Trays** Disposable Plastic Utensils with Reusable ANNUAL NET COST SAVINGS: Silverware Disposable Plastic Water \$3.043 Cups with Reusable Glasses



Shish Grill invested \$80 to replace:

 Disposable Foam Cups for soda and water with ANNUAL NET **Reusable Glasses** COST SAVINGS: Disposable Plastic Sauce Cups with Reusable Sauce Cups

Kirk's Steakburgers invested \$220 to replace: Disposable Paper Travs

with Reusable Baskets ANNUAL NET Disposable Paper Soda COST SAVINGS: Cups with Reusable Cups \$3,981 Disposable Plastic Water **Cups with Reusable Cups**

Link to full tool: see pg. 10



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RECYCLE COLORADO

Our favorite tools - Case Studies

What we saw in this tool

- Before and after photos are effective.
- Highlighting cost savings puts what restaurants are most motivated by up front
- Details are may be too brief to tell the full story; peers need more information to be influenced.

What business saw in this tool

- It's critical that these stories include all true costs and challenges associated with their waste reduction journeys.
- Looping into the community mindset and cultural shift towards waste reduction is important.
- Highlighting unique instances with specific initiatives is important since food service establishments are all so unique.



Our favorite tools - Donation Guide



DONATION

STEP 1: DESIGNATE DONATION LEADS

GOALS AND OBJECTIVES

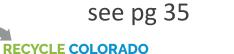
All hotel properties should have at least one active community donation partner who will pick up food that is still safe for human consumption, but unable to be reused in-house. The Bill Emerson Good Samaritan Act of 1996 protects businesses from liability when donating food, except in cases of gross negligence. Hotels should feel confident that establishing a food donation program is not only good for business and the environment, but also for the community - and encouraged by law. By donating edible surplus food, your property can help support the local community, preserve the resources that went into making the food, and reduce the amount of edible nutrients sent to compost, landfill, or other end of life solutions. For common challenges encountered during donation and recommendations for resolving them. please see Appendix H.

STEPS TO ESTABLISHING A DONATION PROGRAM

1. Designate a donation lead at your property

- Identify a trusted and experienced food recovery community partner
- 3. Develop standard operating procedures for handling food set for donation
- 4. Inform and train staff on new procedures
- 5. Gather data and develop a performance report
- 6. Optional: Form a donation alliance with other hotels in your immediate area
 - · Accept your commonly overproduced food items

Link to full tool:





Designate 1-2 staff members (likely from the Task Force, or from Food & Beverage or Culinary

Departments) to lead food donation efforts, including

- · Establishing and maintaining relationship and communication channels with food recovery partner(s)
- · Communicating program intentions to brand or management company
- Facilitating staff adoption of program logistics.
- Actively monitoring food donation handling and pick-up.
- · Collecting and communicating reports on donated food and benchmarking program success.

3 STEP 2: IDENTIFY FOOD RECOVERY PARTNER(S)

Most large cities have multiple food rescue and recovery organizations that will work with you to schedule pick-ups, draft agreements that further limit liability, and provide you with supplies and guidance on what can be donated. Advice on finding a reliable partner is available from many sources, including: the United States Department of Agriculture (USDA), Feeding America, and Further with Food. When looking for a donation partner. ensure they can meet the following expectations:

· Establish a regular pick-up schedule that fits your food generation schedule

- · Provide on-property contacts for urgent matters

· Provide detailed food safety handling practices

Our favorite tools - Donation Guide

What we saw in this tool

- Clearly outlines steps to building an uncommon type of diversion program.
- Touches on regulatory safeguards.
- Misses info and steps around claiming tax benefits (a big motivator!)

What business saw in this tool

- No restaurants spoken with knew about legal protections for food donators.
- Food donations need to be prioritized before compost to reach highest/best use.
- Specific donation requirements for local food banks and organizations are important since they have rigid acceptance requirements.



DIY toolkit key takeaways

Do

- 1. Frame around cost savings, operational efficiencies, and regulatory compliance.
- 2. Focus on tools and operational guidance (i.e., focus on the "how").
- 3. Keep it brief, light, and positive.
- 4. Make it user friendly and very simple.
- 5. Leverage case studies for peer learning/norming.

Don't

- 1. Lead with environmental benefits.
- Include wordy guidance sections about "what" to do/ "why" to do it.
- 3. Use shaming language.
- 4. Include complex spreadsheets.
- 5. Over focus on the positives, leaving out challenges.

Survey

Please provide any additional feedback here:





Wrap up and close

Where we go from here...

- Finalize market analysis and restaurant engagement (spring)
- Design tools/toolkit (summer)
- Pilot testing with restaurants (fall) and small cohort of local governments (2026)
- Roll out for purchase (2026)

How to stay engaged...

- Share your email with us to
 - get updates
 - get these slides and our existing toolkit resource list
- Let us know if your community would like to pilot the toolkit



Thank you & Contact info

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