

2019

State of Wasted Food in Greater Cincinnati



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Executive Summary

Wasted food has become an issue of increasing national prominence over the last several years. 40% of food produced in the United States is wasted, which releases vast amounts of greenhouse gases and wastes resources that go into food production. At the same time, many Americans struggle with food insecurity in the “land of plenty”. For these reasons and more, wasted food has become an issue of focus for many in the Greater Cincinnati region. Based on the groundbreaking work of ReFED and the EPA and USDA’s announced 50% reduction goal regarding food waste, in 2016 the Greater Cincinnati Food Waste Forum brought together 150 stakeholders to determine opportunities to reduce food waste in our region and a Food Waste Action Plan was created. Since that time, awareness about food waste has greatly increased, as have the available resources and efforts to address it.

Three years later, in September of 2019, stakeholders from across Greater Cincinnati came together at the Green Umbrella 2019 Food Waste Forum to celebrate accomplishments to date and identify the next opportunities for reducing wasted food in the region. This report outlines the work currently happening to reduce wasted food, shares the outcomes of the 2019 Food Waste Forum, and presents recommendations to further reduce wasted food.¹

The EPA [Food Recovery Hierarchy](#) describes the spectrum of ways to prevent and divert wasted food. According to the EPA, “the top levels of the hierarchy are the best ways to prevent and divert wasted food because they create the most benefits for the environment, society, and the economy.” This report is organized in line with the hierarchy and includes a section on measurement as well. For the sake of planning, we have grouped several types of activities under broader categories:

1. Measurement and Awareness
2. Prevention (Source Reduction)
3. Recovery (Feed People & Animals)
4. Recycling (Composting & Anaerobic Digestion)

Key Accomplishments We Can Celebrate in our Region

1. [La Soupe](#), a nonprofit, has rescued more than 1 million pounds of food and transformed it into more than 600,000 servings of food donated to local agencies.
2. [GoZero](#) provides food waste courier services to restaurants, institutions, and residents of Greater Cincinnati. More than 50 locations in the area currently receive service from GoZero, with schools make up about 35% of GoZero’s business overall.
3. Many regional corporate entities, including Kroger, Procter & Gamble and 5/3 Bank, have set waste reduction goals that bring new resources, focus, and efforts related to food waste to the area.



¹ This report focuses only on the wasted food efforts that we have identified as happening in the Greater Cincinnati Region. There are innumerable ways that wasted food could further be addressed that are beyond the scope of this report. We recommend looking to resources from the EPA, NRDC, ReFED, and Further with Food to get a more comprehensive understanding of what *could* be done.

4. Wasted food has gained attention with local government, as Hamilton County Recycling and Solid Waste District (District) made organics a priority waste stream in 2018² and the City of Cincinnati included a 20% wasted food reduction goal in the 2018 Green Cincinnati Plan Update.³
5. On June 26, 2019, Cincinnati City Council unanimously passed an Urban Agriculture Zoning Ordinance which made composting more accessible to City residents.
6. Kroger, Feeding America and the Freestore FoodBank began to address surplus food resources in a more comprehensive and collaborative manner.
7. EPA Region 5 convened a forum around anaerobic digestion and composting of food waste in the region

Key Recommendations

Prevention

1. Encourage package labeling and instructions in stores to educate consumers on sell-by and consumption dates, proper in-home food storage, and other ways to extend food life.
2. Advocate for the passage of the Food Date Labeling Act of 2019.
3. Develop a consumer campaign focused on behavior change with practical, easy-to-implement solutions to prevent wasted food.
4. Conduct educational training by a respected chef to share best practices in preventing wasted food for the food service community.
5. Combine wasted food reduction resources into a toolkit for students and educators

Recovery

1. Develop and maintain a database with information on food recovery infrastructure, including available storage space, agencies that can receive food donations, etc.
2. Pass a City of Cincinnati ordinance requiring that City catering contracts and events occurring on City property must include a food rescue plan.
3. Scale up infrastructure for recovery of prepared foods.
4. Develop an online marketplace for surplus/waste products.
5. Incubate a professional community around repurposing surplus foods into value-added products.

Recycling

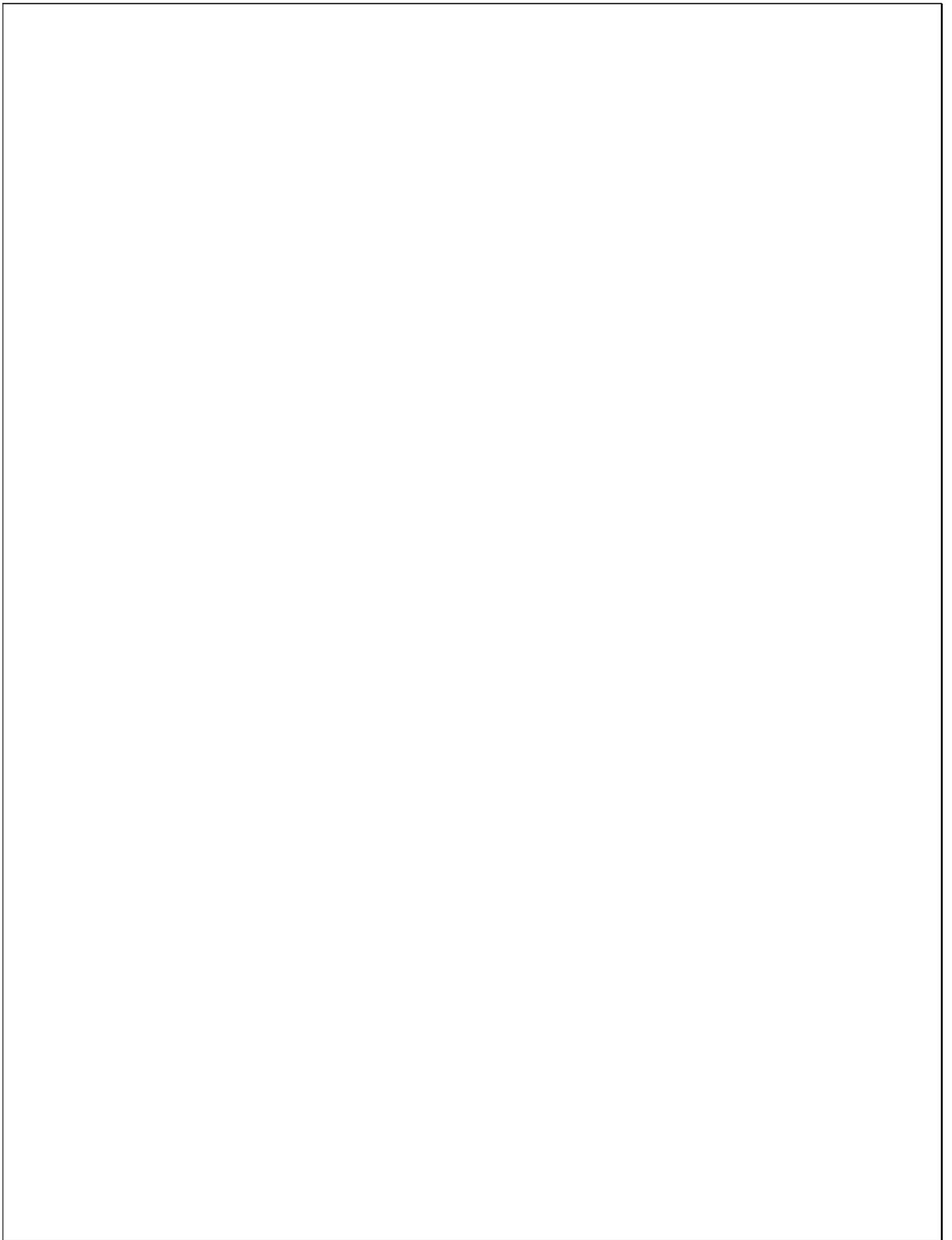
1. Explore opportunities for anaerobic digestion or composting facilities to enter our region.
2. Encourage restaurants and food services to institute food recycling to divert food from the landfill.
3. Develop a community of practice for employees of institutions and restaurants who want to encourage their workplace to recycle food waste.
4. Create a behavior-change campaign to make composting cool and accessible for communities, K-12, and universities.

² Hamilton County Solid Waste Management Plan Update 2018-2022, p. 51

http://hamiltoncountyrecycles.org/UserFiles/Servers/Server_3788196/File/EnvironmentalServices/SolidWaste/About/Solid%20Waste%20Mgmt/solidwasteplan.pdf

³ 2018 Green Cincinnati Plan, p. 129

[https://www.cincinnati-oh.gov/oes/assets/File/2018%20Green%20Cincinnati%20Plan\(1\).pdf](https://www.cincinnati-oh.gov/oes/assets/File/2018%20Green%20Cincinnati%20Plan(1).pdf)



State of Wasted Food in Greater Cincinnati

Section 1: Measurement/Education and Awareness

While the EPA has established a hierarchy of how to address wasted food, the first step for any individual or organization is to recognize that food waste is a problem and to measure the extent of the problem. There are a number of resources and efforts being implemented within the Greater Cincinnati Region to accomplish this:

NRDC Food Waste Calculator

The National Resources Defense Council (NRDC) has developed a food waste calculator to help cities establish baseline estimates of how much food is wasted by sector and determine the potential for food rescue. The City of Cincinnati is currently receiving technical assistance from NRDC and is close to having data which will help Cincinnati determine sector-based improvements for recovery.

Institutional Measurement

Many local institutions are measuring their wasted food as a step to understanding where waste comes from and what can be done to reduce it. The organizations outlined here are presented as examples of the ways institutions have approached this.

University of Cincinnati (UC)

UC uses [LeanPath](#) in its cafeterias to measure wasted food. LeanPath includes a scale, camera, and tablet, which are used to weigh wasted food, take pictures of it, and track changes over time. LeanPath serves two primary purposes at UC. First, it is used to build awareness among the student population about wasted food; a television screen across from the dish return in some dining halls shows the current total of pounds wasted in the dining hall. UC has also conducted a “scrape your plate” event to help students visualize the amount of food wasted in the cafeteria.

Additionally, UC uses LeanPath to reduce pre-consumer wasted food. The camera allows kitchen managers to observe inefficiencies and help staff change their processes to encourage waste prevention. For example, a picture of celery bases in the trash led to staff training to cut closer to the end of the stalk.

In its first year using LeanPath, the University saw a 4.5 ton reduction in wasted food.

TriHealth

TriHealth began measuring wasted food at Good Samaritan Hospital through an audit conducted in July 2017, which considered pre-consumer, retail, and patient meal waste. This audit allowed TriHealth’s chef to make planning and preparation changes, and a second audit two months later showed a 28% reduction in pre-consumer wasted food. TriHealth continues to track pre-consumer

food waste through production sheets, which assist them to ensure they prepare the right amount of food. While TriHealth considered implementing LeanPath, they determined that the additional information gathered beyond production sheets would not offset the additional cost and labor involved.

Smart Kitchens Initiative

Green Umbrella and Hamilton County Recycling and Solid Waste District (District) attempted to encourage more institutions to adopt LeanPath or a similar measurement tool through the Smart Kitchens Initiative. Despite offering up to match 50% of the cost for up to two years, no institutions agreed to pilot the technology. Staff involved with the effort inferred from their outreach to organizations that the primary barrier was not cost, but the effort involved with trying to create cultural and behavioral change within a kitchen. This is particularly challenging because of the ongoing training and monitoring required with the high turnover in the food service industry. While the District is still offering the Smart Kitchen Initiative, it has shifted Institutional Measurement efforts to focus on promotion and assistance with waste audits and the recovery of surplus food.

School Resources

School cafeteria audits can be used to build awareness of wasted food among students and to identify opportunities for waste reduction among cafeteria staff. The [Guide to Conducting Student Wasted Food Audits](#) from the USDA and U.S. EPA outlines the process of conducting an audit, and World Wildlife Fund has developed a [toolkit](#) to educate students about the impact of wasted food. In 2019, three Cincinnati-area schools participated in a grant from World Wildlife Fund with Hamilton County Recycling and Solid Waste District to conduct regular audits in the cafeteria, completing 18 audits overall.

Individual Resources

On an individual level, a simple scale and tracking sheet in the kitchen can be used to measure food wasted at home. A variety of apps are also available to help prompt consumers to be more self-aware. Green Umbrella's Waste Reduction Action Team piloted the [I Value Food](#) challenge with its members in January 2019, with limited success. Many members reported finding it difficult to prioritize following through on the measuring and tracking. I Value Food took lessons learned from this pilot to develop a more robust offering for future challenge participants and developed a toolkit for groups doing the challenge together.

Section 2: Prevention

The very best way to deal with wasted food is to prevent it from occurring in the first place. There are a variety of efforts underway to prevent the waste of food in the Greater Cincinnati area.

Date Labeling

There is currently very little regulation on date labels,⁴ and terms ranging from “sell-by” to “best-before” leave many consumers concerned about the safety of their food. It is estimated that confusion over the meaning of date labels on food packaging accounts for 20% of consumer waste of safe, edible food.⁵

Stakeholders across Ohio, including Kroger, Ohio State University, and many others, are working to advocate for standardized date labeling practices, and on July 25, 2019, the [Food Date Labeling Act of 2019](#) was introduced in the U.S. House of Representatives and U.S. Senate. This bill would require food labelers to use “best if used by” or “use by” if the labeler chooses to include a date on the food packaging.

On October 16, 2019, Kroger [announced](#) that it will standardize all date labels in their brand family, following the same guidelines suggested in the Food Date Labeling Act of 2019, beginning in 2020. [Walmart](#) also transitioned their brands to standardized date labels in 2016, and Hamilton County Recycling and Solid Waste District has made an effort to educate consumers about the meaning of date labels through their [fruit and vegetable storage guide](#), more than 8,000 of which have been given out since 2017.

Consumer Education

According to ReFED, 43% of wasted food occurs in the home,⁶ and consumer education campaigns aim to reduce this number by sharing information on how to adjust eating habits and keep food fresh longer. Locally, Hamilton County Recycling and Solid Waste District and Green Umbrella have utilized a wide range of approaches to educate consumers, including a billboard campaign with [Save the Food](#) assets, a fresh fruit and vegetable storage guide, and seminars and large events that teach best practices for shopping and storing food.

Research conducted for the District by the University of Cincinnati in 2017 and 2019 indicated that consumer awareness of wasted food has increased locally, but that consumer behavior is essentially unchanged. Thus consumer education efforts going forward need to focus not only on building more awareness but specific actions to create behavior change.

Prevention in Restaurants and Institutions

Preventing wasted food in restaurants and institutions involves unique challenges. Americans tend to expect large portion sizes when eating out, and college students are known to pile their trays high in the dining hall without considering their hunger level. In the back of house, high turnover

⁴ Ohio regulation: <https://agri.ohio.gov/wps/portal/gov/oda/divisions/food-safety/Labeling/Labeling-Landing-Page>

Federal regulation: <https://www.fsis.usda.gov/wps/portal/food-safety-education/get-answers/food-safety-fact-sheets/food-labeling/food-product-dating/food-product-dating>

⁵ Consumer insight: date labels and storage guidance. WRAP.

http://www.wrap.org.uk/sites/files/wrap/ES%20Technical%20report%20dates_0.pdf

⁶ <https://www.refed.com/?sort=economic-value-per-ton>

rates and the logistical challenges of training staff on waste reduction methodologies create barriers for those who wish to reduce wasted food.

Success stories in this arena often involve adjusting cultural expectations around food. Some college dining halls, for example, have shifted to trayless dining, which encourages students to start with a smaller quantity and come back for more if they are still hungry. [Smarter Lunchrooms](#) strategies can also reduce waste through simple changes in how food is prepared and presented in school cafeterias.

For chefs, it is important to emphasize the impact wasted food has on a restaurant or institution's bottom line and to begin teaching waste reduction strategies in culinary school. While many food service professionals agree that wasted food is an issue, they may feel too busy to address it on a day-to-day basis or believe they do not have waste.

Technologies for Preventing Wasted Food

Technologies are being invented and improved all the time to prevent wasted food. [Apeel](#) food coating, for example, slows the rate of spoilage in produce by “[forming] a thin layer of edible plant material on the surface of the fruit that slows down water loss and oxidation.” Kroger now uses Apeel coating on all avocados in local stores.

Freezing, dehydration, and canning are also excellent ways to prevent the waste of food, and some consumer education efforts focus on teaching consumers to buy produce already preserved in this way or to do it themselves at home.

It should be noted that a tension exists between reducing wasted food and reducing plastic waste. Plastic can be an excellent tool to prevent food spoilage, but ultimately ends up in the landfill itself. Continued innovation is necessary to develop food storage materials that can be more easily reused or recycled.

Prevention Recommendations

Encourage package labeling and instructions in stores to educate consumers on sell-by and consumption dates, proper in-home food storage, and ways to extend food life.

Grocery stores have power to educate consumers on ways to prevent waste at the point of purchase. Many people, for example, are unaware that most herbs should be stored in a glass of water in the refrigerator, or that milk should be stored at the back of the refrigerator, not in the door. Grocery stores and food manufacturers can communicate specific, easy-to-implement solutions to prevent consumer waste through signage in stores and on labels.

Advocate for the passage of the Food Date Labeling Act of 2019.

Standardizing food date labels at the federal level could reduce in-home wasted food as much as 20%, according to ReFED.⁷ While retailers like Kroger and Walmart have taken the lead on transitioning their brands to standardized labels, the Food Date Labeling Act is necessary to effectively complete this transition by mandating the change throughout the grocery supply chain and creating uniform policy across the nation.

⁷ <https://www.refed.com/solutions/standardized-date-labeling>

Develop a consumer campaign focus on behavior change with practical, easy-to-implement solutions to prevent wasted food. Although awareness of wasted food has steadily increased in our region, action has not followed awareness up to this point. Educational campaigns need to consider methods to encourage consumers to make practical changes to prevent food spoilage and waste.

Conduct educational training by a respected chef to share best practices in preventing wasted food for the food service community. This training is currently in development by Hamilton County Recycling and Solid Waste District, who hope to bring in a Leanpath chef to conduct waste prevention training for chefs and kitchen staff. Due to the challenge of finding a time that food service workers can gather, it remains a priority to encourage this type of training in culinary schools as well.

Coordinate wasted food reduction resources into a toolkit for students and educators.

Many resources exist to help students address wasted food in their schools, including World Wildlife Fund's Food Waste Warrior toolkit, Green Umbrella's Share Table Toolkit and many others. Institutional knowledge from groups like JEE Foods and the Wyoming Schools Green Team could also be quite helpful to others hoping to tackle wasted food in their schools. Housing these resources in one consolidated website or database will make it easier for students, teachers, and other wasted food champions to find the resources they need.

It will be important to pair this resource with ongoing relationship development with schools to ensure that these resources find champions in schools to use them. It should also be noted that some local organizations, like Hamilton County Recycling and Solid Waste District and the Civic Garden Center, can provide technical assistance in implementing wasted food reduction initiatives and education in schools.

Section 3: Recovery

The second level of the Food Recovery Hierarchy is to use surplus food to feed people and animals. In the Greater Cincinnati area, 1 in 6 people is food insecure, which makes food recovery a key element of waste diversion.

La Soupe

[La Soupe](#), founded in 2014, has emerged as a leader in the food recovery space. In their signature model, Rescue-Transform-Share, La Soupe receives donations of surplus ingredients from grocery stores, distributors, and restaurants. Using those ingredients, they create soups and other meals and share them with a variety of local agencies serving people who deal with food insecurity.

La Soupe has several other programs as well:

Point to Point Rescue: La Soupe volunteers pick up excess prepared food from restaurants and businesses, such as JACK Casino, Gomez, and the Duke Energy Convention Center, and deliver the food directly to agency partners.

Bucket Brigade: La Soupe partners with local chefs to transform more than 8,000 pounds of recovered food each week into more than 6,500 servings of food. This program greatly expands La Soupe's capacity beyond their ability to cook at their current facility.

Cincy Gives a Crock: A cooking class for high school students in which every participant receives their own crockpot. During class, students prep the ingredients for a crockpot meal; then, students take the ingredients home and cook for their families.

A key element of La Soupe's work is their network of volunteer drivers, who claim "runs" on the app [Food Rescue US](#) and handle the pick-up and drop-off of recovered food.

La Soupe will move from their current space in Newtown to a much larger facility in Walnut Hills in early 2020. The move will allow them to expand by preparing more food onsite, as well as hosting "improv cooking" classes to teach consumers how to use more of the ingredients they already have in their kitchen and waste less food.

Freestore Foodbank

[Freestore Foodbank](#), a Feeding America partner, coordinates with over 450 community partners to distribute recovered food to people in need. Recovered food is distributed through pantries in schools, health clinics, food banks and community agencies. Produce Pop-Ups, one-day events hosted by community agencies, provide an opportunity for the distribution of surplus produce from companies like Kroger and Castellini who may have a large volume of produce to be distributed at one time. Freestore uses the [MealConnect](#) app to coordinate the logistics of food donation.

Partnership with Local Health Departments

Many restaurants, caterers, and other food-related businesses are unaware that the [Bill Emerson Good Samaritan Food Donation Act](#) protects donors and non-profit food distributors from liability if food is donated in good faith. Local health departments, in partnership with Hamilton County Recycling and Solid Waste District, the City of Cincinnati's Office of Environment and Sustainability, Green Umbrella, and NRDC, are encouraging food donation by sharing information about how to safely donate through a mailing campaign and providing education when food safety inspectors visit food businesses.

Gleaning

Glean and Share, a locally initiated project, launched gleaning efforts in the region in 2018. Gleaning refers to the collection of food from farms that would otherwise be left in the field. So far, volunteer gleaners have partnered with farmers in Butler, Clermont, Hamilton, and Warren Counties to collect more than 2000 pounds of produce, which is then donated to local food banks and community agencies. In 2019, Glean and Share received funds from the [Society of St. Andrew](#) (SoSA) to hire a part-time Hunger Relief Advocate to coordinate a broader regional gleaning network for 2020 and move toward becoming a local SoSA chapter by 2021.

Developing Value-Added Products from Surplus Food

There is a growing interest in creating value-added products from surplus food. When surplus food is flash-frozen, dehydrated, canned, or transformed, it extends the life of that food and makes it easier for consumers to use. [KHI Foods](#), for example, uses surplus tomatoes and peppers to create salsa, pasta sauce, barbeque sauce, and more. [MadHouse Vinegar](#) uses waste products from breweries and other producers to make small-batch vinegars. [JEE Foods](#), a non-profit started by

students at Ross High School, processes donated surplus food so it can be stored and shared with community agencies as need arises.

Other Recovery Efforts

[Fourth Harvest](#) was founded out of a desire to create financial value for food wholesalers to encourage donation of surplus food. The federal government provides tax incentives to businesses who donate food through the [PATH Act](#). Fourth Harvest assists businesses by arranging the logistics of food donation and calculating the tax deduction for which the business qualifies. Apart from donation assistance, Fourth Harvest can also assist businesses to list surplus food for sale through [Local Food Connection](#).

Share Tables in K-12 schools give students the opportunity to place certain unwanted food and drinks for other students to take. Share tables are encouraged by the USDA, as well as by state and local health departments. In the Greater Cincinnati region, more than 100 school cafeterias use share tables to reduce waste. Cafeteria audits conducted by Green Umbrella in the 2018-2019 school year show that share tables can capture 20-40% of food that would be thrown away on a typical day.

Technology Opportunities in Food Recovery

Technology already plays a huge role in food recovery through apps like [Food Rescue US](#) and [MealConnect](#), which are crucial to coordinating the logistics of food donation. Local food banks and soup kitchens would also like to work together to develop a comprehensive database of commercial kitchens, freezer space, and other resources available to assist with the preparation and storage of recovered food. Value-added producers have also indicated that a platform similar to the [Ohio Materials Marketplace](#) would encourage more businesses to sell their by-products to be turned into new products.

Recovery Recommendations

Develop and maintain a database with information on food recovery infrastructure, including available storage space, agencies that can receive food donations, etc.

Because so many organizations are involved in different aspects of the food recovery system, it can be challenging to grasp all the opportunities available for potential donors and recipients of recovered food. Momentum exists to create a comprehensive database to harness this information, but challenges remain related to funding, managing, and publicizing such a database. Despite these challenges, this recommendation is included here because it has been identified as a need by a variety of key stakeholders.

Pass a City of Cincinnati ordinance requiring that City catering contracts and events occurring on City property must include a food rescue plan.

Although the City of Cincinnati doesn't host many catered events, passing this ordinance could signal the City's commitment to reducing wasted food and encourage caterers to consider a food recovery plan to include in their proposals even beyond the scope of city-owned venues. Additionally, the City requires food at events hosted in Cincinnati Parks to be provided by approved caterers, so this ordinance could spur the development of food recovery plans for these events.

Scale up infrastructure for recovery of prepared foods.

Many restaurants and institutions that wish to donate excess prepared foods are challenged by a lack of space to store this food until it can be picked up. Therefore, additional storage infrastructure or a plan for just-in-time pickup of donated food is needed to grow recovery of prepared foods.

Develop an online marketplace for surplus/waste products.

Businesses want to create value out of their by-products and surplus food, and entrepreneurs are interested in using these items to create new products. However, there is no easy way for these people and organizations to connect with one another at this point. An online platform like the Ohio Materials Marketplace could facilitate this exchange, helping to harness the economic potential of this growing market while diverting by-products and surplus food from the landfill.

Incubate a professional community around repurposing surplus foods into value-added products.

While some local businesses have found success repurposing surplus foods into value added products, this is a largely untapped market in the Greater Cincinnati region. This is an opportunity to collaborate with entrepreneurship-focused organizations like [MORTAR](#) and [Startup Cincy](#) to encourage more aspiring business owners to consider entering this space.

Section 4: Recycling

A 2018 waste composition study by the Hamilton County Recycling and Solid Waste District found that more than 30% of organics entering the landfill could be residentially composted, and nearly 50% could be commercially composted. With a landfill expansion currently under construction, the importance of recycling wasted food through composting or anaerobic digestion is gaining more attention.

History of Organics Recycling in Cincinnati

Efforts to recycle wasted food in Cincinnati have experienced stops and starts in recent years. Perhaps the most notable project was Compost Cincy, in which City-owned land was leased to a private operator for use as a commercial food waste composting facility. From August 2012-December 2013, Compost Cincy provided the opportunity for local businesses to compost food waste inexpensively because of the low cost of hauling. However, Compost Cincy was ultimately shut down due to taking on too much too quickly, odor issues and complaints from neighbors.

Commercial Composting

While there is currently no commercial composting facility in the region, [GoZero](#), based in Springfield, Ohio, provides commercial food waste hauling and composting for the Greater Cincinnati area. GoZero provides collection carts to businesses, institutions, events, and individuals and services carts on a regular basis. Collected waste is then taken to one of GoZero's facilities, where it is composted.

Disposal services typically cost about \$0.10/pound, ranging from \$0.03/pound to \$0.20/pound depending on the volume collected. At the time of printing, more than 50 locations in the Cincinnati

area currently receive service from GoZero, and schools make up about 35% of GoZero's business overall. GoZero is currently the only commercial composting option publicly available in the region.

GoZero partners with local organizations like [Better Bin Compost](#) to make food waste composting more accessible. Better Bin Compost offers curbside collection services in five Cincinnati neighborhoods; residents receive 4-gallon bins to collect their waste, which is picked up weekly by Better Bin and consolidated into carts serviced by GoZero.

Other projects, including [Queen City Commons](#), are also in development to address the need for additional composting services in the region.

Snapshot: Organics Recycling at 5/3 Bank

5/3 Bank collects wasted food from the back-of-house food service operation at their Madisonville campus buildings to be composted. Although the program initially included both front- and back-of-house waste, challenges related to contamination led the front-of-house component to be eliminated. 5/3 estimates that 44,000 pounds of material have been diverted from the landfill so far.

Anaerobic Digestion and Small-Scale Vessels

Efforts have been made to recycle food waste through anaerobic digestion and small-scale composting vessels. Findlay Market utilizes an in-vessel composter to process their food waste, and JTM recently completed a pilot test of a microbial digester, Advetec, in which they reportedly saw a 65% reduction in the volume of their food waste. The newest technology implemented at U.C.'s dining hall Over the Green, is currently successfully grinding and dehydrating organics that are then hauled by GoZERO. Other efforts to utilize similar technologies, such as dehydrators and in-vessel composting at Xavier University, have faltered due to the logistical challenges.

Residential and Neighborhood Composting

Residential and neighborhood composting are also important elements of food waste recycling in the region. Hundreds of residents attend composting seminars each year, taught by the Civic Garden Center or Hamilton County Recycling and Solid Waste District, and some neighborhoods have begun community composting stations where any resident can bring their food waste for composting. Zoning changes passed by Cincinnati City Council in 2019 eased composting restrictions within Cincinnati itself, making it easier to establish community composting efforts in the City. Training sessions are currently in development to ensure that neighborhood composting spots are well-maintained and everyone is following best practices.

Recycling Recommendations

Explore opportunities for anaerobic digestion or composting facilities to enter our region.

There are several opportunities currently under discussion that could bring anaerobic digestion or composting facilities to our region. GoZero, the primary organics hauler in Greater Cincinnati, would like to open a facility close to Cincinnati in partnership with the Ohio Department of Corrections. An anaerobic digestion workgroup began meeting in October 2019 to bring together stakeholders to discuss development of a facility in the Cincinnati area to reduce reliance on landfilling. The Metropolitan Sewer District has plans to build an anaerobic digester to process sewer sludge, and

this digester has the potential to be modified to process wasted food as well. In each of these plans, several barriers remain, including site location, funding, and community support for the project. Bringing an organics recycling facility to our region remains a top priority for many stakeholders.

Encourage restaurants and food service to institute food recycling to divert food from the landfill.

Restaurants face unique challenges related to food recycling, including cost, lack of space, need for seven-day service, and high turnover of employees. The area can learn from others that have successfully implemented restaurant food recycling programs, such as Austin, TX. More detailed direction is available from ReFED in their [Restaurant Food Waste Action Guide](#).

Develop a community of practice for employees of institutions and restaurants who want to encourage their workplace to recycle wasted food.

Many workplaces have “green” initiatives, and green teams desire the opportunity to share ideas, learn from one another, and encourage their organizations to make further steps to reduce waste. Promoting composting is an impactful way for businesses to do this, but questions and concerns about logistics, odors, and cost often create barriers to organics collection programs. A community of practice would enable composting champions to gather good information to help their workplaces make this transition.

Several venues exist that may be a good fit for this community of practice:

- Hamilton County Recycling and Solid Waste District is developing a green business certification and could offer expertise in this area.
- The 2030 District is comprised of more than 20 building owners committed to sustainability, several of whom have experience with the logistics of organics collection in a large institution with limited building space.
- Beyond 34, a collaboration of the business community through the Cincinnati Chamber of Commerce, will be conducting pilot projects to further reduce waste in our region in 2020, and may include a wasted food pilot in their portfolio.

Create a behavior-change campaign to make composting cool and accessible for communities, K-12, and universities.

While pockets of neighborhood-level composting are appearing around the region, there has not yet been an organized effort to encourage community composting. Hamilton County Recycling and Solid Waste District, Civic Garden Center, Keep Cincinnati Beautiful, and many soil and water conservation districts already provide composting education in schools. Hamilton County will hold a workshop in February of 2020, led by the [Rust Belt Riders](#) for those interested in developing a neighborhood composting program. The workshop’s intent is to impart best practices as well as raise awareness about the opportunity to compost on a neighborhood level and encourage more of these programs to begin. More conversation needs to take place to determine the best methods for a behavior change campaign to help normalize composting as a residential waste diversion technique.

Section 5: Next Steps for the Greater Cincinnati Region

Wasted food continues to be a high-priority issue for many in our region, and there is great potential for continued progress. There are already numerous champions driving work on specific issues where more collaboration would help, as well as a number of recommendations that do not currently have a clear champion. Specifics are identified below:

Recommendation	Current progress	Champions	Next Steps
Encourage package labeling and instructions in stores to educate consumers on sell-by and consumption dates, proper in-home food storage, and ways to extend food life.	Kroger and Walmart are both converting to 'use by' date labels on their private-branded products. Kroger's Zero Hunger Zero Waste initiative is resulting in on-going changes in their stores and advertising to help educate consumers.	Kroger Zero Hunger Zero Waste Hamilton County Recycling and Solid Waste District	This is an opportunity for on-going dialogue and collaboration.
Advocate for the passage of the Food Date Labeling Act of 2019.	This is national scale work that will benefit from grassroots support. Harvard Food Law and Policy Clinic partnered with the Natural Resources Defense Council to publish a comprehensive review of state and federal date labeling laws and consumer confusion. In Ohio, significant research is being led by Brian Roe of the Ohio State University Department of Agricultural, Environmental and Development Economics.	Harvard Food Law and Policy Clinic Natural Resources Defense Council Brian Roe, Ohio State University	We encourage people interested in this issue to contact one of these organizations to learn more about how they can help.
Develop a consumer campaign focused on behavior change with practical, easy-to-implement solutions	HCRSWD is soliciting proposals from marketing firms to develop a campaign and planning to create a regionally focused webpage for educating	Hamilton County Recycling and Solid Waste	We encourage collaboration with and support of Hamilton County's effort.

<p>to prevent wasted food.</p>	<p>consumers on preventing wasted food. Hamilton County and Green Umbrella’s Waste Reduction Action Team have developed a number of brochures and tools for educating consumers.</p>		
<p>Conduct educational training by a respected chef to share best practices in preventing wasted food for the food service community.</p>	<p>Under the direction of Lilly Burdsall, Jeff Ruby’s Steakhouse is undertaking significant food waste prevention and chef training in their kitchens. Previously, Chef Burdsall also focused on food waste training prevention while at Cincinnati State Culinary Institute. CRSWD hosted a LeanPath training in February 2020 for institutional kitchens. Other entities that could be key partners in developing and delivering such a training are the Chefs Collaborative, La Soupe, American Federation of Chefs, 513 Chefs, and the local Restaurant Association.</p>	<p>No active champion identified. Should come from within the food service industry.</p>	<p>Leadership on this effort is needed.</p>
<p>Combine wasted food reduction resources into a toolkit for students and educators.</p>	<p>Numerous resources and partners exist to help create this toolkit and develop a plan for implementing it. Currently, the Greater Cincinnati Regional Food Policy Council has a Farm to School planning grant that includes developing a strategy for coordinating delivery of food and agriculture related education that targets schools.</p>	<p>The Greater Cincinnati Regional Food Policy Council</p>	<p>The GCRFPC will incorporate this recommendation into their Farm to School planning work.</p>
<p>Develop and maintain a database with information on food</p>	<p>The Soup Kitchen Summit, a collaboration originally convened by the Mayerson</p>	<p>The Soup Kitchen Summit, led by Our Daily Bread, La</p>	<p>Assistance digitizing a database is needed at this point. Once</p>

<p>recovery infrastructure, including available storage space, agencies that can receive food donations, etc.</p>	<p>Foundation and the Haile Foundation and now led by Our Daily Bread, La Soupe and Freestore Foodbank, is working on this critical issue. They have been reviewing all the databases that exist in our region and the platforms for disseminating them, and are negotiating with several partners to develop governance and resources for maintaining a publicly available, easy to use database.</p>	<p>Soupe, and Freestore Foodbank The Mayerson Foundation</p>	<p>digitized, resources to support hosting and on-going maintenance of the database will be necessary.</p>
<p>Pass a City of Cincinnati ordinance requiring that City catering contracts and events occurring on City property must include a food rescue plan.</p>	<p>La Soupe and the Greater Cincinnati Regional Food Policy Council have had preliminary conversations with City Council staff about this proposal.</p>	<p>Greater Cincinnati Regional Food Policy Council</p>	<p>Clear leadership and direction is needed to achieve final adoption. The GCRFPC has provided resources to City Council and is exploring viable options. Identify a template for city contracts to pilot.</p>
<p>Scale up infrastructure for food recovery of prepared foods.</p>	<p>La Soupe, a leading food recovery organization in the region, is currently building out their infrastructure in Walnut Hills which can allow for more food recovery of prepared foods. Meals on Wheels and Freestore Foodbank could also be important partners in identifying where there are opportunities for more real time food rescue and developing operating procedures for rescuing, portioning, preserving, and redistributing prepared foods.</p>	<p>No active champion identified.</p>	<p>Further study of this recommendation, and leadership on coordinating collaboration is needed.</p>

Develop an online marketplace for surplus/waste products.	Fourth Harvest was created to incubate this kind of market in the region. It is currently distributing out of Local Food Connection. Ohio EPA has an online materials marketplace that could serve as a model for developing a more robust on-line marketplace for surplus foods. Other food incubators and entrepreneurs should be engaged.	No active champion identified.	Further study of this recommendation, and leadership on coordinating collaboration, is needed.
Incubate a professional community around repurposing surplus foods into value added practices	A number of organizations, including but not limited to Mad House Vinegar, La Soupe, Findlay Market Kitchen, and KHI would be key partners to include in such an effort.	No active champion identified.	Further study of this recommendation, and leadership on coordinating collaboration, is needed.
Explore opportunities for anaerobic digestion or composting facilities to enter our region.	HCRSWD is convening a working group to explore Anaerobic Digestion. The city of Cincinnati Office of Environment and sustainability has had conversations with some potential business leads in the region. The Ohio Department of Corrections is looking for support in building a composting facility in Lebanon.	Hamilton County Recycling and Solid Waste District	The AD working group will continue to meet in an effort to bring commercial organics recycling to the region.
Encourage restaurants and food services to institute food recycling to divert food from the landfill.	Businesses such as Go Zero and Queen City Commons are creating the hauling infrastructure, however the food recycling infrastructure is needed in our region for this to be economically efficient.	Go Zero Queen City Commons	While collaboration may benefit this work, enterprises that can offer cost competitive services to businesses are best suited to drive this recommendation
Develop a community of practice for	Partners that may be helpful are HCRSWD, the 2030 District,	No active champion identified.	Green Umbrella intends to form a commercial

employees of institutions and restaurants who want to encourage their workplace to recycle wasted food.	and the City of Cincinnati's Beyond 34 effort.		waste reduction impact team. HCRSWD's 513 Green Business Certification will be convening small to medium sized offices.
Create a behavior-change campaign to make composting cool and accessible for communities, K-12, and universities.	HCRSWD is collaborating with community partners and experts to offer a local training on small-scale community composting (under 500 sq/ft per Ohio EPA).	Hamilton County Recycling and Solid Waste District. Civic Garden Center Keep Cincinnati Beautiful	Further support from community partners would help accelerate this work.

Other Recommendations

While the recommendations given above reflect the collective work of stakeholders at the 2019 Food Waste Forum, industry experts additionally identified the opportunities below as ways to reduce wasted food.

- Support a policy in Ohio to incentivize businesses to divert organics from the landfill and to make construction of organics recycling facilities more viable. Policies could include:
 - Implement a landfill ban on organics from facilities over a certain size if an anaerobic digester or compost facility exists within 40 miles.
 - Add a \$1 tipping fee to fund construction of anaerobic digestion or other organic recycling technology.
- Adjust Cincinnati's waste collection funding mechanisms to support wasted food collection.
- Create a regional initiative to promote collaboration on wasted food across organizations with a funded coordinator.
- Encourage grocery stores to use their own blemished produce to create ready-made food sold in-store.
- Conduct market research to determine the most effective ways to create behavior change among consumers.