

Beyond The Landfill

Laying The Groundwork for Food Waste Reduction
in Sterling Heights, MI

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Up to 40% of our food supply is wasted

2.4 million tons of food waste were recorded in the state of Michigan in 2022

That is equivalent to **4.57 billion** unsold or uneaten meals

Food
Insecurity

Climate
Change

Source:
National Restaurant Association
ReFED Insights Engine

When food decomposes in a landfill without Oxygen, it produces Methane (**CH₄**).

Over the first 20 years after its release, methane is more than **80 times** more potent than CO₂ in trapping heat.

42 coal-fired power plants worth of carbon emissions per year



A multifaceted issue

Food loss and waste is a complex global phenomenon.

At the local municipal level, it requires a multi-pronged approach to ensure a sustainable, effective program



1.

PUBLIC AWARENESS

2.

LOGISTICS

3.

INFRASTRUCTURE

4.

COLLABORATION

5.

POLICY

Sterling Heights, MI



Motivations



Lack of data on
food waste and
food waste
practices



Fewer food
receiving and
rescue
organizations

Policy gaps
and funding
opportunities



Methods

01.

research industry
standards
& best practices

02.

informational
interviews &
talking to
community

03.

policy analysis
& case studies



Deer Camp, Sterling Heights



Haru Cafe, Sterling Heights

Solutions

The EPA's Wasted Food Scale provides a data-driven roadmap, prioritizing food waste prevention and redirection to minimize environmental impact.

ReFED Insights point to **reshaping consumer environments, product management and waste tracking** as key solutions to food waste in the food service industry



Wasted Food Scale

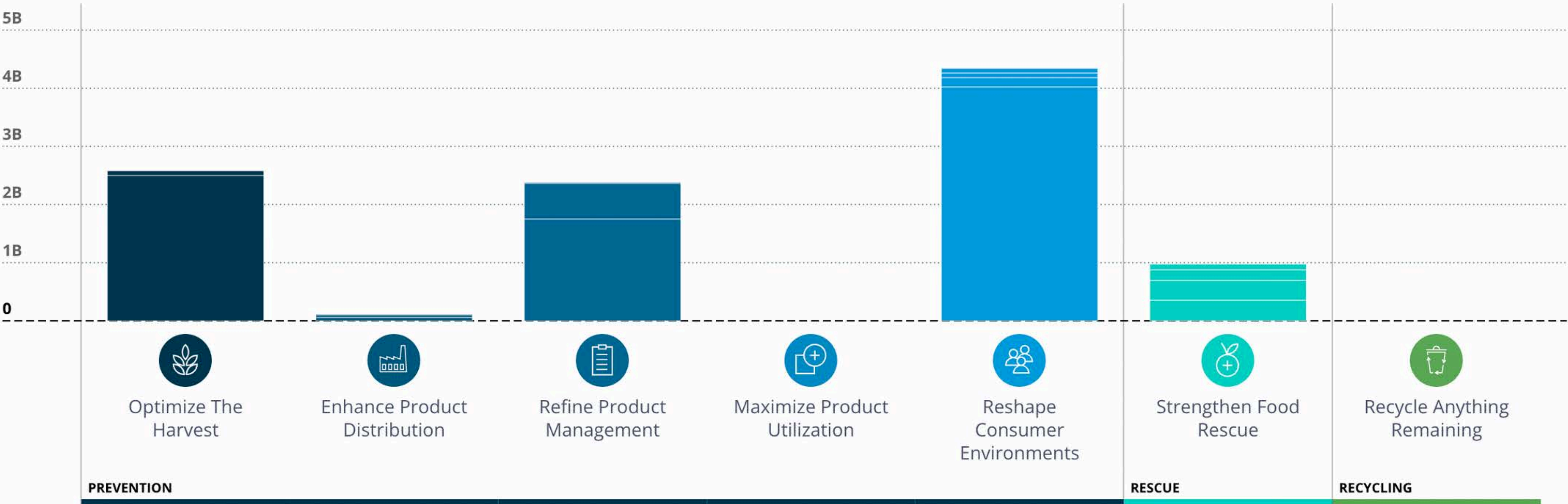
How to reduce the environmental impacts of wasted food



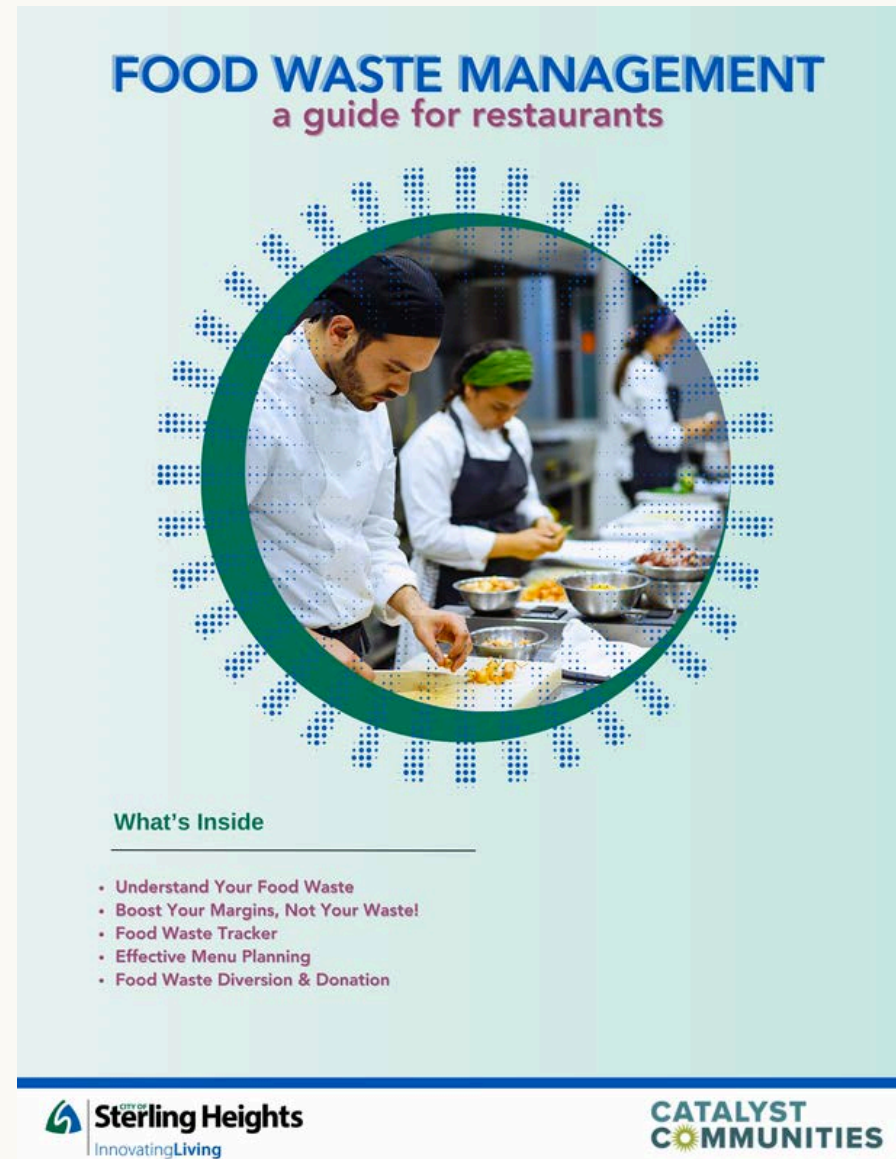
Source: EPA

Explore solutions to food waste

ANNUAL MEAL EQUIVALENT OF FOOD
WASTE SOLUTIONS
EQUIVALENT MEALS

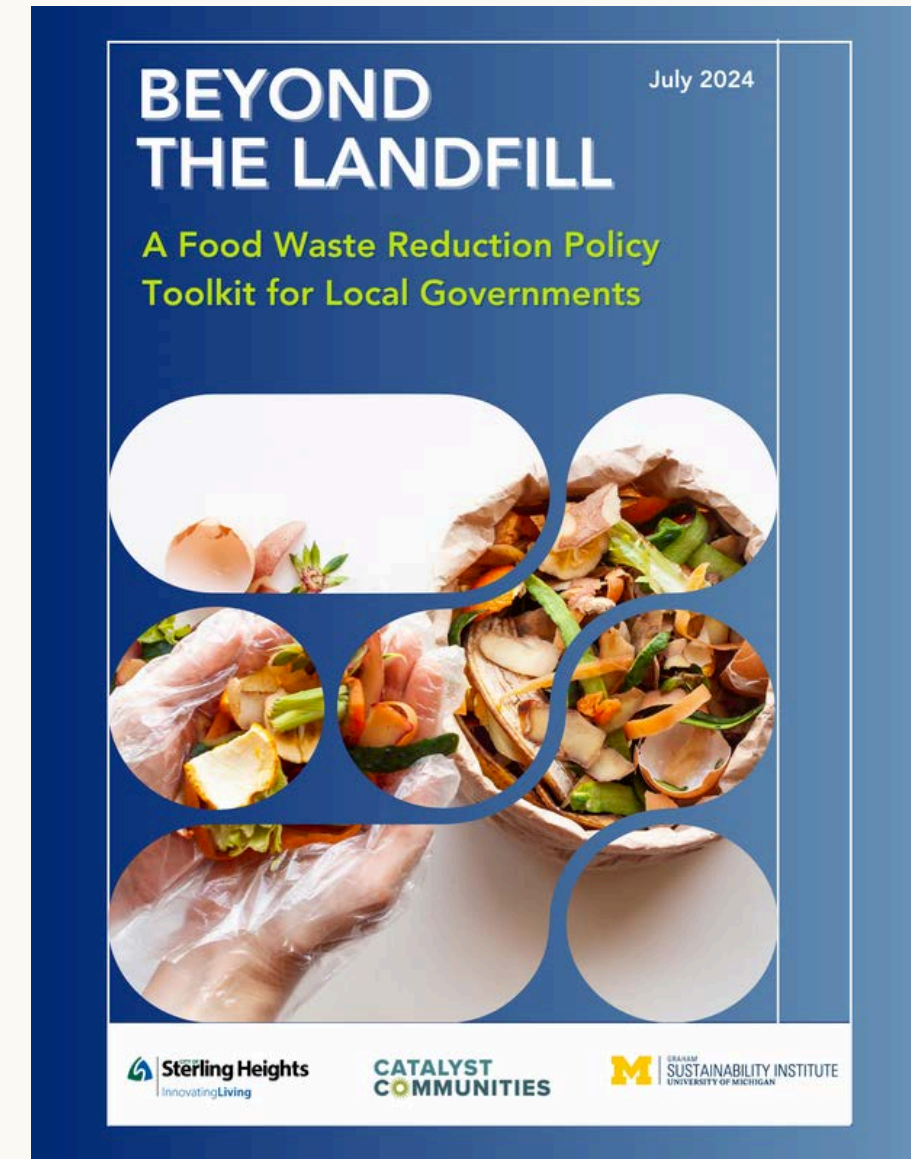


Source: ReFED Insights Engine



Educational Pamphlets

Educational material for business owners - mostly small restaurants, cafeterias and grocery stores



Policy Toolkit

Policy recommendations for City Council, case studies, funding and grant opportunities

EFFECTIVE MENU PLANNING

Menus are essential to a restaurant's identity and making changes can pose difficulties. However, small changes to menu planning can make a tremendous impact on food waste and improve profits.

- 1 Analyze your best selling dishes in terms of their popularity and profitability - which dishes are popular? which dishes are profitable? Categorize them into 'stars', 'plough horse', 'dogs' or 'question marks'. Once you have analyzed these, try to



- These dishes are popular but may need to be reviewed to see if they can return higher margins.
- These dishes are your best sellers, highlight them and understand why they work.
- These dishes are profitable but unpopular, why are they unpopular? what can you do to increase their popularity and visibility?
- These are the poorest performers, it may be time to review these dishes, change the recipe or removed from the menu. Seek ample feedback.

- 2 Be open to including dishes that make use of 'ugly' produce and even scraps. Most foods across cultures, have recipes that use food scraps - include labels such as 'No Waste Dishes' or 'Sustainable Salads' to educate customers!
- 3 Include visual cues in your menu, include 'half' and 'full' size options for dishes. Another industry standard is to offer refills of sides instead of pre-determined portions. Provide customers with different options for sides.
- 4 Consider highlighting seasonal produce and taking out certain off-season dishes if you notice a drop in their popularity. This will help you manage your inventory at the back of the house. Alternatively you may reduce demand for seasonal food if you anticipate lower demand.
- 5 Instead of offering unlimited free bread or chips, a more mindful approach could be to ask the customer first if they want these. Consider even adding it to the menu for a nominal fee.
- 6 Consider meal stacking to offer flexibility and cater to diverse dietary preferences. For example, having a vegan salad as the base and then an option to add meat or dairy.

Sources: National Restaurant Association, Hellman's & Guardians of Grub

FOOD WASTE TRACKER WORKSHEET

How to conduct a food waste audit

- 1 **SCHEDULE DATES**
Schedule dates for the audit. One week of data is a good baseline. Appoint a champion to oversee and manage the audit.
- 2 **SORT THROUGH WASTE**
Wear gloves and sort waste into separate, labeled bins (spoilage, prep and). You can have separate stations in the front and back of the house.
- 3 **RECORD WASTE**
Weigh the bins on the scale (remember to tare!) and add the total amount of waste at the end of the shift. Use the tracker below to write it down.
- 4 **ANALYZE THE DATA**
Analyze the data to identify food waste hotspots (such as trimmings or plate waste) and document your observations.

Things you will need: to track kitchen and prep waste

- Five gallon clear bins
- Gloves
- Weighing scale
- Proper signage
- Waste tracker sheet
- Clipboards and pens
- Napkins/ cloths for cleanup
- Label Stickers

DAY	SPOILAGE	PREP WASTE	PLATE WASTE	MISCELLANEOUS
1				
2				
3				
4				
5				
6				
7				
TOTAL				



Every year, the average American household wastes \$1500 in food

- **Confused about dates?** Use your senses (sight & smell) to judge freshness after the sell-by date, do not simply go by labels.
- **Prevent Spoilage.** Proper storage is key! Ask us about the best way to store your groceries for lasting freshness.
- **Plan Your Meals.** Make a list and buy the right amount of food!
- **First-In, First-Out.** Use older items before buying new ones. Store older food on the outside of your refrigerator shelf.

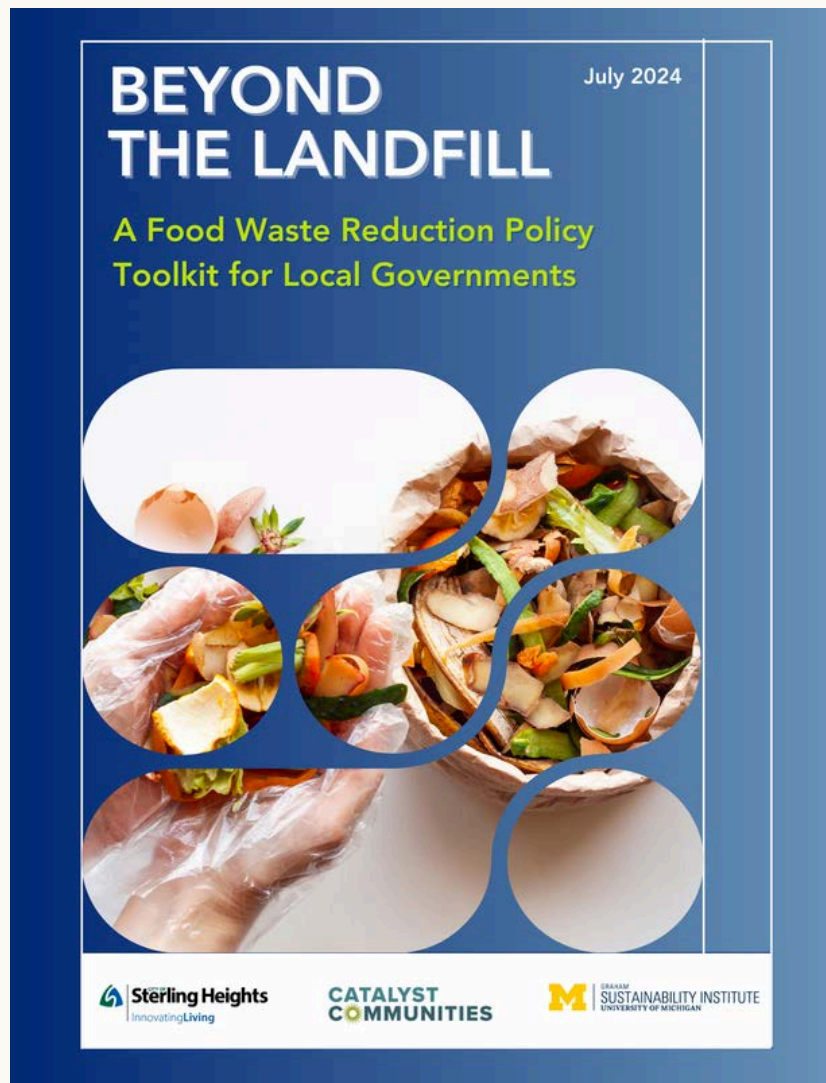
Sterling Heights
InnovatingLiving

For More Information & Tips Scan the QR Code



Helping business owners take the first step

- ➔ Tips for tracking food waste
- ➔ Information on dates and labels
- ➔ Effective menu planning
- ➔ Other best practices



Setting up a committee

To effectively address food waste, a comprehensive understanding of the issue is essential. This involves reviewing existing plans, policies, and community feedback to identify opportunities and challenges. By bringing together diverse stakeholders, including city officials, environmental experts, business representatives, and community members, the committee can:

- Create a roadmap for reducing food waste and a comprehensive strategy
- Allocate resources such as funding and staffing for the program
- Monitor progress
- Build community support
- Foster collaboration

Model Order

[Municipal Government] shall Create a central entity for coordinating municipal food waste efforts by hiring or designating a City Food Waste Reduction Coordinator ("Coordinator") and/or convening a cross-agency working group ("Coordinating Body").

While comprehensive measurement and baseline assessments are crucial for long-term food waste reduction strategies, **cities need not wait for perfect data to initiate programs.** A phased approach, starting with smaller-scale initiatives and gradually expanding, can yield significant results. By concurrently building the foundation for robust data collection, cities can optimize their efforts over time. This strategic balance ensures continuous progress towards a more sustainable food system.

Setting Targets

Establishing a baseline for food waste is crucial but setting clear reduction targets is equally important. The U.S. Conference of Mayors has committed to halving food waste by 2030, providing a benchmark for cities like Sterling Heights. By publicly declaring a specific goal, the city can galvanize support and initiate targeted action.

- After establishing a broad food waste reduction goal, the **city should review past plans, initiatives, and community feedback.** The city can then gather input from various stakeholders including city officials, businesses, community leaders, local experts and civil society organizations. The following model order was developed by the NRDC to provide a template for the city.

Model Order

"The [Municipal Government] hereby adopts a goal of reducing food waste in [Municipality] by 50 percent by 2030, consistent with the federal goal set in 2015."

06

Rescue & Recovery

Food rescue is fundamentally about repurposing surplus food. This involves recovering uneaten or unsold items from businesses and individuals and redirecting them to those in need. By salvaging food that would otherwise be wasted, food rescue organizations play a crucial role in extending the food supply chain and maximizing the value of agricultural resources. Another aspect of food rescue is the resale of surplus food at discounted prices by specialized solution providers. Rescue not only addresses food insecurity but also reduces the environmental impact associated with food production and disposal.

Donation

Food donation is a critical component of effective food waste recovery. By diverting surplus food from landfills to those in need, cities can significantly reduce waste and address food insecurity. To optimize food donation efforts, local governments should invest in infrastructure, provide technical support for matching food donors with recipients, and streamline regulations. Food donation can occur at every stage of the supply chain, from farms to consumers, making it a versatile strategy for maximizing food utilization. According to the EPA's Excess Food Opportunities Map, Sterling Heights was marked as having fewer donation receiving organizations compared to neighboring cities pointing to a gap in the donation infrastructure. The following are some recommendations to strengthen food donation in the city.

Recommendations:

- The city should educate business owners and residential households on donation liability laws. Information on federal laws for donation liability protection can be found as part of the [Bill Emerson Food Donation Act](#) and [State Law](#) on donation liability.
- Standardize donation regulations within the city for safe handling and donation of food. This can include clear language on eligibility criteria, transportation requirements and food safety standards. It could also include standardizing a permitting and licensing process for rescue organizations to comply with safety regulations.
- Establish or strengthen local food donation networks to connect food donors (grocery stores, restaurants, farms) with food recipients (food banks, shelters, community kitchens). The city can partner with platforms such as [FoodRecovery](#) which matches donors and receivers for free.
- Improve donation infrastructure by providing funding for the purchase of physical assets such as refrigerated vehicles for food recovery; improving cold storage infrastructure for storage of surplus food and; offer grants & technical assistance to recovery organizations

Helping city hall take the first step

- ➔ Overview of local policies
- ➔ Links to funding sources
- ➔ Steps to measure food waste
- ➔ Other best practices

Next Steps

- Setting Goals & Targets
- Collaboration with local food waste management organizations
- Outreach to retail and food service establishments in the form of workshops; education campaigns
- Pre-baseline studies and surveys



Together, City Hall and foodservice businesses can tackle food waste

- Demonstrate **the business case** for food waste reduction
- Provide a call to action for **environmental stewardship**
- Foster a culture that enables a **long term food waste program**



Q&A



Thank You



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