

# Small Business Sustainability

*Zach Samaras*

*Zero Waste Program Manager*

*Illinois Sustainable Technology Center (ISTC)*

*Cassie Carroll*

*Assistant Director*

*EnergySense Resilience Center*



UNIVERSITY  
OF ILLINOIS  
SYSTEM

# Illinois Sustainable Technology Center (ISTC)

Net Zero Center for  
Excellence

Center for Economic  
Impacts and Societal  
Benefits (CEISB)

Emerging  
Contaminants

It is the mission of CEISB to assist businesses, governmental organizations, and citizens in improving environmental performance and economy.

## Zero Waste

Materials management,  
waste reduction/diversion

## Technology Acceleration Program

Pollution prevention and  
energy efficiency

## Environmental and Societal Systems Research

Social science research &  
community engagement

## Knowledge Services & Collaboration

Support ISTC scientists  
throughout the  
research/project lifecycle





# EnergySense

## Resilience Center

Our mission is to empower organizations with practical solutions for climate, energy, and sustainability.



Energy code training



Energy efficiency services



Building energy education



Public water infrastructure energy  
assessments



Green business services



Climate action planning



Workforce development



Solar feasibility

# The Illinois Green Business Program



- Founded in 2008 by the Illinois Green Business Association (IGBA), now a partnership between EnergySense and IGBA.
- **Goal:** provide pathways that connect businesses to sustainability best practices that **help businesses reduce costs, increase operational efficiency, and lower environmental impact.**
- **Services provided:**
  - On-demand support and education
  - Technical assessments
  - Green Business Benchmark
  - Green Business Certification

# Why Sustainability Matters Now for Food Businesses

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It's hard for food businesses to fully embrace and act on sustainability opportunities...

- Costs of business increasing
- Constantly managing turnover
- Limited time - pivoting to meet today and tomorrow's needs
- Operate on tight profit margins – not a lot of extra capital for investments

... but food businesses are nimble, and they can lead the sustainability movement!

- Provide expert guidance to prioritize meaningful opportunities to reduce costs, increase efficiencies
- Connections to practical tools and incentives
- Efficiency with resources now = long term viability and community impact!

# Zero Waste Benefits

## Environmental

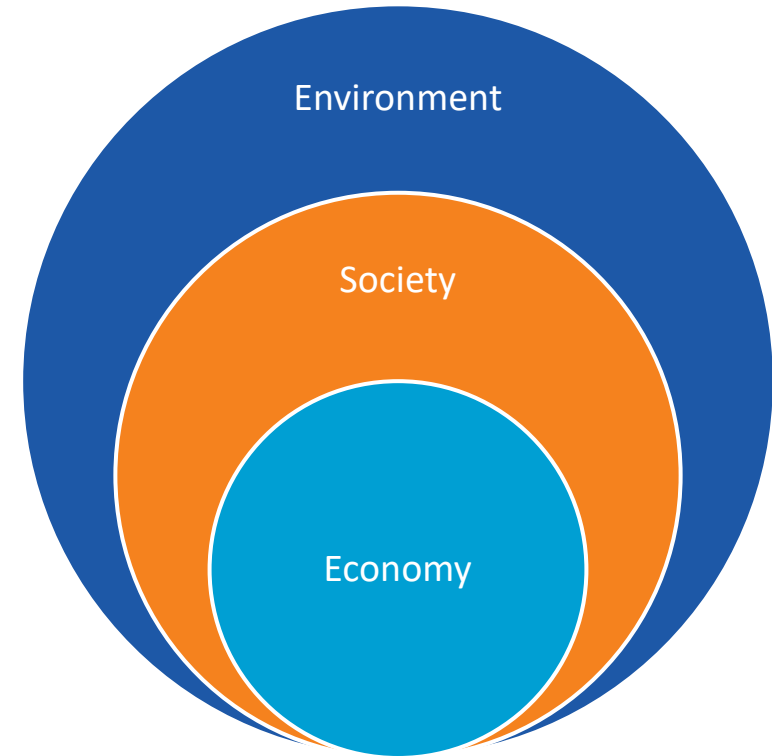
- Reduce environmental footprint
  - Minimizing waste to landfills
  - Materials to their highest and best use
  - Reduce pollution and emissions

## Social

- Sense of pride for employees
- Marketing edge

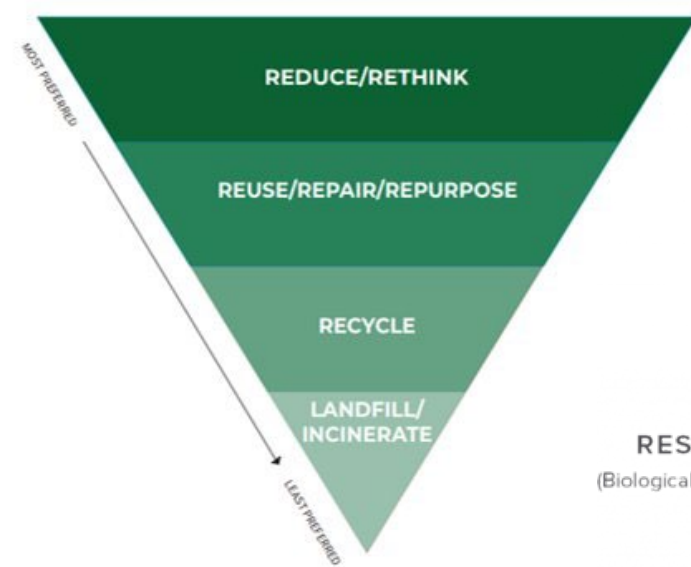
## Financial

- Cost savings – waste reduction
- Cost transfer – reducing trash service to add compost service



# Waste Hierarchies

## MATERIALS MANAGEMENT HIERARCHY



- RETHINK/REDESIGN
- REDUCE
- REUSE
- RECYCLE/COMPOST
- MATERIAL RECOVERY
- RESIDUALS MANAGEMENT  
(Biological treatment and stabilized landfilling)
- UNACCEPTABLE  
(Incineration and "waste-to-energy")

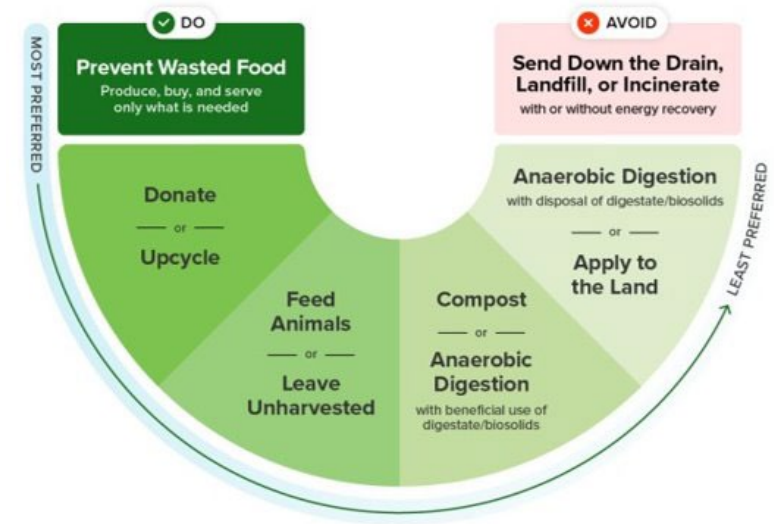
## THE ZERO WASTE HIERARCHY 8.0

For detailed version visit [www.zwia.org/zwh](http://www.zwia.org/zwh)



## Wasted Food Scale

How to reduce the environmental impacts of wasted food

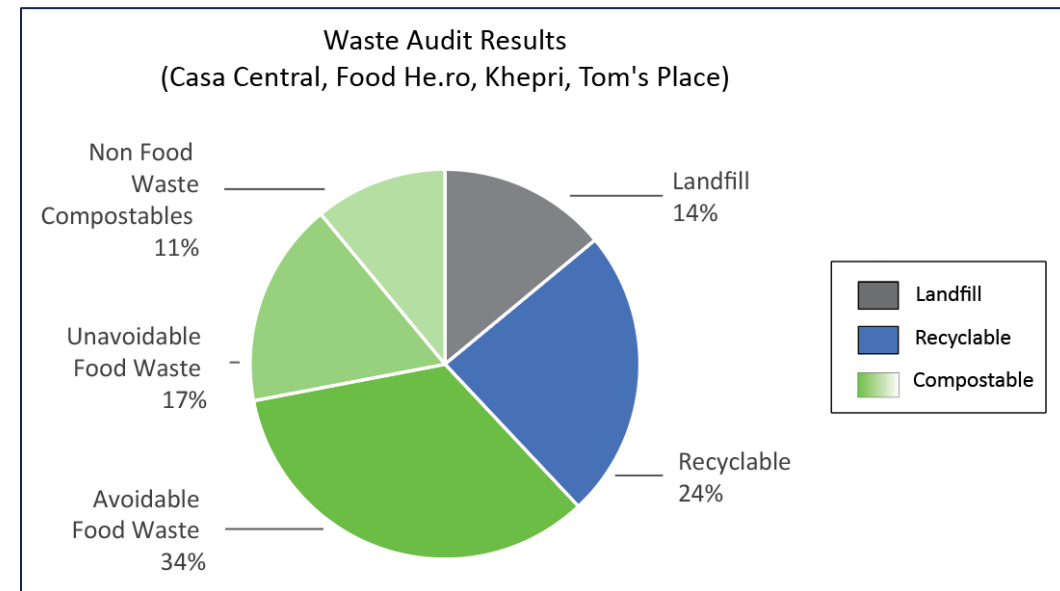


# Food Waste Assessments 2023

We worked with 5 small food-focused businesses on food waste. This included site visits, waste audits, and food waste reduction and diversion implementation.

## Challenges

- Lack of physical space in the kitchen
  - Addition of compost bins
- Staff communication
  - Multiple shifts
  - Standard operating procedures
- Designating a champion
  - Engage employees early in the process



**62% of all material sorted was compostable.**





A vertical image on the left side of the page showing a close-up of a wood grain texture, with various shades of gray and black creating a swirling, organic pattern.

# **Reducing PFAS Exposure in Chicagoland**

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Increase the adoption of compostable,  
PFAS-free foodware

# Expanding Access to PFAS-Free Foodware

Goal: Increase the adoption of alternative, single-use foodware without harmful PFAS (no or safer coating).

Working with 30 businesses in the Chicagoland area to provide:

- No-cost foodware assessments to food-focused businesses
- Up to \$300 to purchase PFAS-free foodware products to test
- Connections to PFAS-free foodware suppliers in the region
- Other sustainability opportunities that benefit a business' bottom line



# Lessons Learned



- **Businesses are interested in safer foodware options** and care about customer PFAS exposure and getting ahead of state legislation
- The issue: It's challenging for businesses to know what to look for!
- Compostable product branding can be a deterrent for a business to purchase items
- Not all products are more expensive, but it depends on actual purchasing volume and current product pricing
- Most businesses are ok paying a little more a month to know the product will be effective for housing their food



# Lessons Learned

- Businesses open to using different looking products, but the product must have similar attributes (performance, visual) to what they already use.

## Other Sustainability Recommendations

During the site visit, we found other opportunities to reduce resource use, increase operational efficiency, and reduce costs. Table B summarizes these opportunities, while listing the potential savings and available incentives to help with implementation of these best practices.

Table B. Sustainability recommendations for Righteous Kitchen

Measure	Savings	Incentives
Switch faucet aerators to low-flow aerators	Over 9,750 gallons of water, \$280/year	Free low-flow aerators through the Nicor Gas Energy Efficiency Program.
Upgrade pre-rinse spray valve to a low-flow spray valve	Over 8,900 gallons of water, \$260/year	\$25 rebate available through the Nicor Gas Energy Efficiency Program.
Add weather sealing to the dock door and back door	Up to 10% annually on heating/cooling bills	ComEd Small Business Offering Program - work with ComEd to identify incentives.
Install electrically commutative (EC) evaporative fan motors in the walk-in unit	Over 1500 kWh saved, \$200 saved annually	ComEd Small Business Offering Program, up to \$210 reimbursed per motor installed.
Install strip curtains on the walk-in unit	Over 1800 kWh saved, \$230 saved annually	ComEd Small Business Offering Program, \$4 reimbursed per square foot of walk-in.
<b>Total Savings</b>	<b>\$970 per year</b>	

Table 2. New Product Recommendations for 32oz Round Container

New product (linked with product information)	Supplier	Cost per case (amount/case)	Cost difference/unit	Total monthly cost	Monthly cost difference
A) <a href="#">World Centric's fiber bowl with PLA lining and lid</a>	WasteNot Compost	\$202.36 (500/cs)	\$0.25	\$182.12	-\$9.80
B) <a href="#">Better Earth's rectangular fiber bowl with bamboo lid</a>	Urban Canopy	\$170.86 (400/cs)	\$0.27	\$192.22	+\$0.30
C) <a href="#">Better Earth's bamboo collection round bowl with bamboo lid</a>	Urban Canopy	\$117.36 (200/cs)	\$0.28	\$196.12	+\$4.20
D) <a href="#">Better Earth's rectangular fiber bowl with PLA lid</a>	Urban Canopy	\$226.23 (400/cs)	\$0.41	\$254.51	+\$62.59
E) <a href="#">Better Earth's bamboo collection round bowl with PLA lid</a>	Urban Canopy	\$113.56 (200/cs)	\$0.41	\$255.51	+\$63.58

*\*Monthly cost difference refers to the difference from your current foodware's monthly cost and the new safer products monthly cost. Cost per case contains the cost for both the lid and bowl.*




Figure 2. shows the recommendations in order from most(A) to least(E) recommended based on price.

# We look forward to sharing our results!

## PFAS-Free Product Guide

This PFAS-free product guide helps you find the right product for your establishment.


### PLA-Lining



PLA-lining gives products an extra coating allowing it to hold heavy soups, pastas, etc.

Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

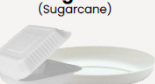
### Bamboo



Bamboo is sturdy and able to carry heavy hot and cold foods.

Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe


### Bagasse (Sugarcane)



Bagasse, sugarcane, usually carry a variety of attributes good for any foods!

Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe


### PLA (Bioplastic)



PLA, polylactic acid, is a compostable bioplastic great for cold foods and drinks.

Hot food approved, Cold food approved, Freezer safe


### Fiber-Based



Fiber is great for hot and cold dry foods like salads, sandwiches, pizza, etc.

Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

### Agave



Unlike paper straws, agave straws are able to hold their shape for longer times.






Hot food approved, Cold food approved, Freezer safe

### Foodware Attributes Key


- Oil Resistant
- Good for saucy meals
- Microwavable
- Hot food approved
- Cold food approved
- Freezer safe


Note: It is important to check the product description when ordering foodware.

For more information on our PFAS-free foodware program, you can visit our website below  
<https://smartenergy.illinois.edu/a-safer-future-embracing-pfas-free-takeout-containers/>



- Producing a foodware guide, flyers for businesses and the public, economic analysis, and case studies
  - All documents will be available on our website.
- Will hold webinars in January 2026 to showcase findings
- We would like to expand this initiative across the state.
  - Interested in partnering? Let's chat!

 **EnergySense**  
Resilience Center

 **ILLINOIS GREEN**  
BUSINESS ASSOCIATION

# Sustainability Assessments – 2025/2026!

Source Reduction Assistance  
Small food businesses in  
DuPage or Kane counties.

Beverage Resilience Program  
Breweries, wineries,  
distilleries, and other craft  
beverage businesses across  
Illinois.

## What Will the Process Look Like?

Process steps	Description (Participant's time commitment)
<b>Step 1: Initial Conversation</b>	Brief introductory phone call to discuss the assessment process, expectations, and discuss utility data collection. (30 minutes)
<b>Step 2: Pre-Assessment Data Collection &amp; Analysis</b>	The participant will share utility billing data as available. Providing this information helps our team quantify savings opportunities found on-site. (30 minutes)
<b>Step 3: Facility Walkthrough</b>	On-site visit to discuss and tour the facility to review current conditions of the facility including infrastructure and operational processes. Identify sustainability opportunities for cost and resource savings. (1 hour )
<b>Step 4: Providing Recommendations &amp; Resources</b>	ISTC and EnergySense will use data and information from previous steps to develop strategies to reduce costs and/or reduce environmental impact. Recommendations and resources will be shared via written report and presentation with Q&A. (1 hour)
<b>Step 5: Implementation</b>	ISTC and EnergySense will assist businesses that are interested in implementing recommended strategies. Implementation assistance includes further guidance on equipment and/or process upgrades, as well as connecting to incentive or funding opportunities. (Time varies)
<b>Step 6: Case Study</b> (Optional)	A case study will be developed to showcase opportunities uncovered and strategies implemented. (0-1 hours)



# Thank you!

*Zach Samaras*

*Zero Waste Program Manager*

*Illinois Sustainable Technology Center (ISTC)*

*zsamaras@illinois.edu*

*Cassie Carroll*

*Assistant Director*

*EnergySense Resilience Center*

*ccarrol2@uillinois.edu*



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