

MassDEP

Organics Subcommittee Meeting

November 1, 2022





FREE ASSISTANCE FOR BUSINESSES & INSTITUTIONS

RecyclingWorks MA is funded by MassDEP, delivered under contract by the Center for EcoTechnology



recyclingworksma.com





**Hotline
Services**

**Technical
Assistance**

**Website
Resources**

**Newsletter &
Social Media**

**Case
Studies**

**Outreach &
Education**



RecyclingWorks Hotline

Interpretation Services Available in Over 100 Languages

info@recyclingworksma.com

888-254-5525

No-Cost Technical Assistance

- Evaluate existing waste streams
- Identify opportunities to prevent, recover, and divert waste
- Employees education and training
- Customized waste bin signage
- Cost analysis for starting or expanding a waste diversion program
- Connect with waste haulers and processors





FOOD SCRAPS
RESTOS DE ALIMENTOS



ALL FOOD SCRAPS

Fruit & vegetable peels
Dairy, eggs, grains, bread
Meat, fish, poultry
Bones, shells



TODOS LOS RESTOS DE ALIMENTOS

Pieles de frutass y vegetales
Lácteos, huevos, granos, pan
Carne, pescado, aves
Huesos, cáscaras

NO

Tissues, napkins, paper towels
Compostableware
Coffee cups, wrappers
Plastic, metal, glass



NO

Pañuelos de papel, servilletas, papel toalla
Utensilios compostables
Taza de café, envoltorios
Plástico, metal, cristal



RESTOS DE COMIDA/RÈS MANJE

Compostagem

Todos restos de comida
Guardanapos e Toalhas de papel
Frutas, vegetais, laticínios, pães, grãos, carnes e peixes, ossos e conchas, ovos



Konpos

Tout kalite rès manje
Napkin ak sèvyèt papye

Fwi, legim, pwodui letye, pen, grenn, vyann ak pwason, zo ak koki, ze

NÃO

Proibido luvas, plásticos, embalagens, isopor e outros lixos



NON

Pa mete gan, ni plastik, ni anbalaj, ni stiwofom, ni okenn lòt fatra



English & Spanish signage available online
Additional translations by request

recyclingworksma.com/about-recyclingworks/get-help-recycling/

FOOD WASTE ESTIMATION GUIDE

New Updates

Sample calculations reflect ½ ton food waste per week

If you are a full-service restaurant with **17 employees**, then:

$3,000 \text{ lbs/employee/year} * 17 \text{ full-time employees} = 51,000 \text{ lbs food waste generated/year}$

$51,000 \text{ lbs/year} \div 52 \text{ weeks/year} = 981 \text{ lbs/week} = 0.5 \text{ ton of food waste per week}$

If you have **150 guest rooms**, then:

$345.64 \text{ lbs/room/year} * 150 \text{ rooms} = 51,846 \text{ lbs/year}$

$51,846 \text{ lbs/year} \div 52 \text{ weeks/year} = 997 \text{ lbs/week} = 0.5 \text{ ton of food waste per week}$

recyclingworksma.com/food-waste-estimation-guide

ESTIMATING FOOD WASTE FROM RESTAURANTS

½ TON FOOD WASTE PER WEEK:

- Full-service restaurant:
 - 1,000 meals per week
 - 17 full-time employees
- Limited-service restaurant
 - 2,000 meals per week
 - 24 full-time employees

	Average Measurement	
Meals Served [Full-Service]	1	lbs/meal
Meals Served [Limited-Service]	0.5	lbs/meal
Employees [Full-Service]	3,000	lbs/employee/year
Employees [Limited-Service]	2,200	lbs/employee/year
Disposed Waste ¹ [Full-Service]	66	% of disposed waste by weight
Disposed Waste ¹ [Limited-Service]	51	% of disposed waste by weight

ESTIMATING FOOD WASTE FROM HOSPITALS

Average Measurement		
Meals Served	0.6	lbs/meal
Food Served	30	% of food served by weight
Beds ¹	3.42	lbs/bed/day
Employees ²	290	lbs/employee/year

½ TON FOOD WASTE PER WEEK:

- 1,667 meals per week
- 42 hospital beds
- 180 full-time employees

ESTIMATING FOOD WASTE FROM SUPERMARKETS

1/2 TON FOOD WASTE PER WEEK:

- 17 full-time employees
- One 8 yd³ trash dumpster per week

	Average Measurement	
Full-Time Employees	3,000	lbs/employee/yr
Disposed Waste ¹	63	% of disposed food by weight

recyclingworksma.com/how-to/business-sector-guidance/supermarkets

ESTIMATING FOOD WASTE FROM HOTELS

Average Measurement		
Guests	1	lbs/person/day
Rooms	345.64	lbs/room/year
Disposed Waste ¹	36	% of disposed waste by weight
Employees ²	1,305	lbs/employee/year

½ TON FOOD WASTE PER WEEK:

- 143 guests per day
- 150 guest rooms
- 40 full-time employees
- Two 6 yd³ trash dumpsters per week

recyclingworksma.com/how-to/business-sector-guidance/hospitality


ESTIMATING FOOD WASTE FROM COLLEGES AND UNIVERSITIES

	Average Measurement	
Meals Served	0.35	lbs/meal
Students ¹ [Residential]	141.75	lbs/student/year
Students ² [Non-Residential]	37.8	lbs/student/year

½ TON FOOD WASTE PER WEEK:

- 215 students living on campus
- 800 students living off campus

Do you know how much food is in your trash?

A row of four green plastic trash carts, each with a lid and a handle. The carts are lined up against a white background.

One-half ton of food waste fills approximately four of these 64-gallon carts.

A man with a beard and glasses, wearing a blue polo shirt and a red apron, is standing in a grocery store. He is holding a clipboard and a pen, looking down at it. The background is slightly blurred, showing shelves of produce.

SOURCE REDUCTION GUIDANCE

Cost savings

Waste tracking

Meal planning

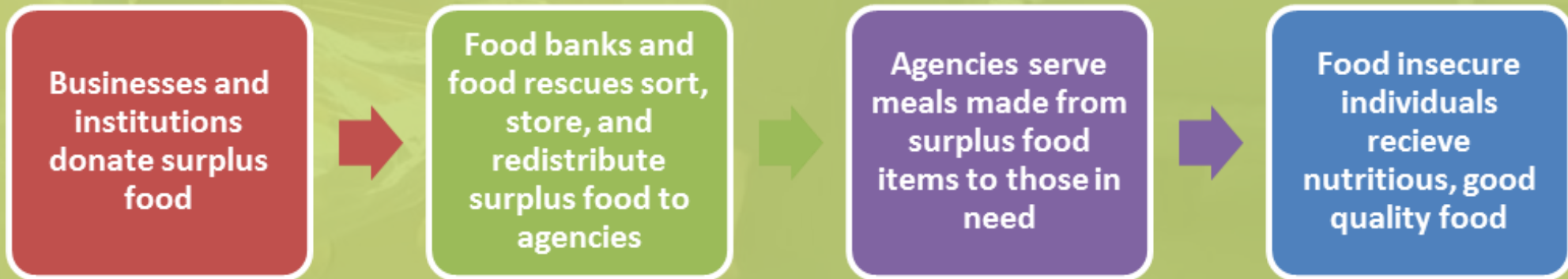
Food purchasing and procurement

Storage

recyclingworksma.com/source-reduction-guidance

FOOD DONATION GUIDANCE

1. Identify the types and amounts of food to be donated
2. Identify partner organizations in your area with which to work
3. Determine packaging, storage, and labeling requirements to ensure food safety
4. Determine how food will be transported as well as pick-up frequency and quantities



recyclingworksma.com/donate/



Food Donation Agreement Form

Food Donor Organization	Food Distribution Organization
Representative	Representative
Address	Address
Phone	Phone
Email	Email

Food Product	Packaging	Storage Conditions	Check all that apply	Quantity and frequency
Prepared Foods	Food-grade packaging	Chilled to 41°F or below, or frozen at 0°F or below		
Chilled Perishable Prepackaged Foods	Original packaging or food-grade packaging	Chilled to 41°F or below		
Meat, poultry, fish (fresh)	Original packaging or food-grade packaging	Chilled to 41°F or below		
Meat, poultry, fish (frozen)	Original packaging or food-grade packaging	Frozen at 0°F or below		
Dairy Products	Original Packaging or food-grade packaging	Chilled to 41°F or below		
Shelf stable foods	Original packaging			

For additional information on categories of donated food and how they must be handled see Appendix A (pg 39-40) of the Comprehensive Resource for Food Recovery Programs April 2016 revision.

Describe how food will be transported. Include pickup frequencies and how food will be packaged for transport (e.g. in coolers, in refrigerated truck).

RecyclingWorks in Massachusetts Hotline: 888-254-5525 info@RecyclingWorksMA.com
Food Donation Page: www.recyclingworksma.com/donate

Food Donation



Is there leftover food that can be donated today?

DONATE

Whole fruits & vegetables

Fresh dairy, grains

Prepared foods

Food stored below 41°F
or above 135°F



Call _____ at
_____ today
with questions or to schedule pickup!

Store food in fridge located

Label and keep temperature log
every _____ minutes.

NO

Moldy, rotten, spoiled food

Items past expiration date

Food not held at proper temperatures



If you can't donate it - compost it!
Compost bins are located

FOOD SCRAPS SOURCE SEPARATION GUIDANCE

Collect for composting, animal feed, or anaerobic digestion

Container placement and color coding

Clear signage

Easily accessible and available bins

Good housekeeping practices

recyclingworksma.com/source-separation-guidance



HAULER CONTRACTING GUIDANCE

Knowing Your Waste

Creating and Adjusting Contracts

Complying with Waste Disposal Bans and Other Regulations

Communicating Effectively

recyclingworksma.com/hauler-contracting-bmp

recyclingworksma.com/equipment-for-collecting-trash-recycling-and-food-waste

CASE STUDIES

Video & written

Search by business type or material

Video subtitles in English & Spanish

Nominate a business or institution to be featured!

recyclingworksma.com/case-studies

The screenshot displays a website interface for 'Case Studies' under the 'Food Waste' category. The page features a grid of case study cards, each with a video thumbnail, a title, a brief description, and a 'Read More' button. The cards include:

- Johnny's Luncheonette:** RecyclingWorks in Massachusetts presents a case study on Johnny's Luncheonette, an iconic diner in Newton with robust recycling and food ...
- Brandeis University:** Learn how Brandeis University, a research institution in Waltham, implemented a dorm and public space recycling program with support from ...
- The Lenox Hotel (2019):** Learn how The Lenox Hotel has maintained a successful food waste diversion program for 4 years, donating over 80 meals per ...
- Westin Boston Waterfront Hotel:** Learn about Westin Boston Waterfront Hotel's waste diversion efforts through single stream recycling, source separation of food scraps, and food ...
- UMass Amherst:** Learn about UMass Amherst's food recovery efforts across the food recovery hierarchy, including source reduction, donation, and composting ...
- Food Donation | Recycli:** Learn about food donation practices at two businesses as they partner with food rescue organizations to successfully divert nutritious food ...



- Educational signage for staff and customers
- Collects 600-700 pounds of food scraps per week for composting
- Reduced nuisance conditions in trash area



recyclingworksma.com/johnnys-luncheonette



Established a performance plan for third-party food service provider

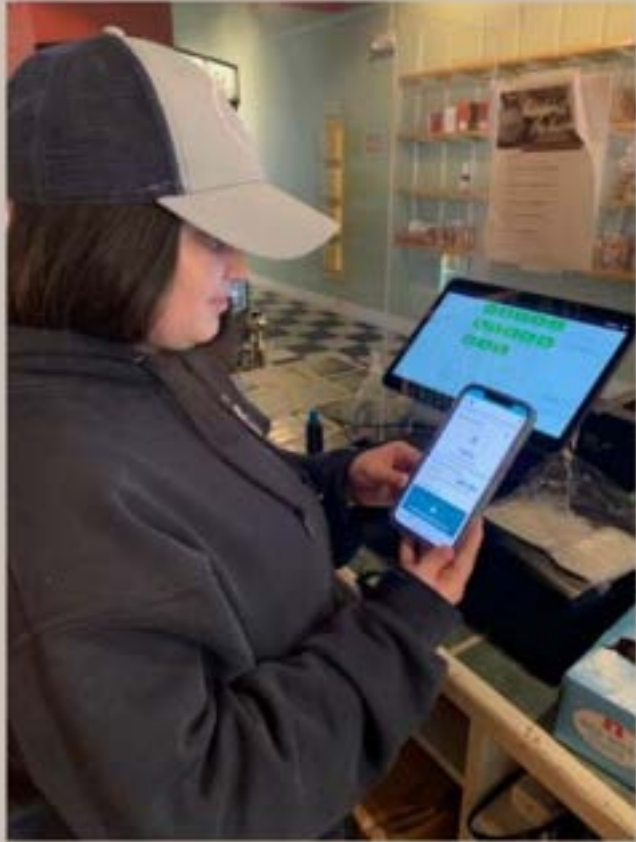
Leanpath technology used to track food waste

Educational signage across campus

Increased composting rate from 2% to 12% of campus waste from 2015-2021

recyclingworksma.com/brandeis-university-case-study

Nashoba Brook Bakery



Donates surplus bread to four partner agencies

Diverts scraps to animal feed

Partners with Too Good To Go

The Lenox Hotel

Excess edible food is donated to the Boston Rescue Mission

Pre- and post-consumer food scraps are separated and composted

Program success linked to employee education

recyclingworksma.com/the-lenox-hotel-2019



WESTIN BOSTON WATERFRONT HOTEL



Connected with Rescuing Leftover Cuisine at
2016 RecyclingWorks Forum

Donated 1,400 meals worth of food in first 6
months

Prevention strategies – reduced size of
pastries, repurpose leftover oatmeal

recyclingworksma.com/food-donation

recyclingworksma.com/westin-boston-waterfront-hotel



at the

GARDNER ALE HOUSE

20 tons spent
barley diverted to
pig feed

50 tons organics
from kitchen
diverted to animal
feed

Located disposal
costs from trash
contract

recyclingworksma.com/gardner-ale-house

TARGETED OUTREACH TO INCREASE AWARENESS

Who?

Businesses

Industry Associations

Identity Organizations

Chambers of Commerce

Organics Haulers

Food Rescue Organizations

Municipalities

What?

Newsletter, website, social media content

Print resources

Presentations and trainings

Technical assistance for local businesses

Organics Waste Disposal Ban Resources for Restaurants

recyclingworksma.com/how-to/business-sector-guidance/restaurants



Ayudando a los Restaurantes Reducir el Desperdicio de Alimentos Recursos de RecyclingWorks en Massachusetts

Efectivo el 1 de Noviembre de 2022, El Departamento de Protección Ambiental de Massachusetts (MassDEP) está reduciendo [la prohibición comercial de eliminación de desperdicios de alimentos](#) para las empresas e instituciones que generan **media tonelada o más de desperdicios de alimentos por semana**.

Maneras fácil y económico para cumplir:

- **Evite el desperdicio de alimentos** – Disminuyendo el volumen de alimentos desperdiciados reduce el costo de las operaciones y aumenta la eficiencia. [Aprende más](#).
- **Donar excedentes comestibles** – ¡Los alimentos sobrantes se pueden donar a organizaciones locales de rescate de alimentos! [Aprenda más](#) y conéctese con [organizaciones de donación de alimentos](#).
- **Separe los restos de comida para la alimentación animal, la digestión anaeróbica o el compostaje**. [Obtenga más información](#) y conéctese con [los transportistas orgánicos](#).

¿ESTÁ SU NEGOCIO SUJETO A LA PROHIBICIÓN DE ELIMINACIÓN DE DESECHOS DE ALIMENTOS COMERCIALES?

Para ayudar a determinar si su negocio puede estar sujeto a la prohibición comercial de eliminación de desperdicios de alimentos, consulte la [Guía de Estimación de Desperdicios de Alimentos para Restaurantes](#). Estas reglas pueden ser un punto útil.

- **Los restaurantes de servicio completo** pueden generar media tonelada de alimentos por semana si sirven más de **1,000 alimentos por semana** o si tienen más de **18 empleados**.
- **Los restaurantes de servicio limitado** pueden generar media tonelada de alimentos por semana si sirven más de **2,000 alimentos por semana** o si tienen más de **24 empleados**.

Consulte nuestra [página web de restaurantes](#) para obtener más orientación sobre [la creación de un programa de desvío de desperdicios de alimentos](#), la recuperación de otros materiales prohibidos como el [reciclaje de flujo único](#), y [la reducción de desperdicios de comidas para llevar y entregas](#).

¿Sabes cuánta comida hay en tu basura?



Organics Waste Disposal Ban Resources for Haulers



Dear Business Owner,

In 2014, The Massachusetts Department of Environmental Protection (MassDEP) established a commercial food waste disposal ban that applies to businesses and institutions disposing of one ton or more of food waste per week. Effective November 1, 2022, the MassDEP is lowering the threshold for the ban so that it applies to businesses and institutions generating **one-half ton or more of food waste per week**.

Hundreds of businesses and institutions have already taken steps to reduce and divert wasted food from disposal, relying on a variety of different options such as food waste prevention, food donation, and collecting food scraps for composting, anaerobic digestion, or animal feed. These activities can improve employee job satisfaction, respond to customer demands for sustainable practices, and may help you save on disposal costs. Separating food scraps from the trash also often helps to reduce unwanted nuisance conditions.

To determine whether your business may be subject to the lower threshold commercial food waste disposal ban, refer to the Food Waste Estimation Guide created by the MassDEP-funded RecyclingWorks in Massachusetts (RecyclingWorks) program: recyclingworksma.com/food-waste-estimation-guide/.

These rules of thumb can be a helpful starting point:

- **Supermarkets and Grocery Stores** may generate one-half ton of food material per week if they have more than 18 full-time equivalent employees.
- **Full-Service Restaurants** may generate one-half ton of food material per week if they serve more than 1,000 meals per week or have more than 18 full-time equivalent employees.
- **Hotels** may generate one-half ton of food material per week if they have more than 143 guests per day or more than 40 full-time equivalent employees.

If you would like help getting started with diverting wasted food from the trash, free technical assistance is available from RecyclingWorks! RecyclingWorks can also help your organization improve recycling of other materials that are banned from disposal, such as cardboard, paper, and containers.

To request free assistance, call the RecyclingWorks hotline at **(888) 254-5525** or email info@recyclingworksma.com!

Organics Waste Disposal Ban Resources for Food Rescue Organizations



RecyclingWorks in Massachusetts Resources for Food Rescue Organizations

MASSACHUSETTS COMMERCIAL FOOD WASTE DISPOSAL BAN AWARENESS

[Commercial Food Waste Disposal Ban Flyer](#) (Also available in [Spanish](#)) – Graphic/flyer to help increase awareness of the food waste ban changes effective November 1, 2022, and to help businesses visualize 1/2 ton of food waste (approximately four 64-gallon carts). RecyclingWorks also has a printable version with a QR code that we can provide upon request if your organization is interested in printing and distributing.

[Letter to Businesses about the Food Waste Disposal Ban Changes Effective November 1, 2022](#) – RecyclingWorks developed a sample letter that food rescue organizations can send to their partners to notify them of the upcoming food waste disposal changes. Included are a few examples of businesses that are likely subject to the lowered-threshold food waste disposal ban, based on the RecyclingWorks Food Waste Estimation Guide (see below).

WHAT BUSINESSES ARE SUBJECT TO THE COMMERCIAL FOOD WASTE DISPOSAL BAN?

[Food Waste Estimation Guide](#) – Online tool to help businesses determine whether it is likely they are subject to the Massachusetts Commercial Food Waste Disposal Ban. This tool should be considered a starting point to businesses with little to no food waste diversion program in place and actual food waste generated can vary widely from one business to another. Please note that example calculations on the website are currently for 1 ton food material per week and will be adjusted for 1/2 ton food material per week. See sector-specific information for:

- [Assisted Living Facilities](#)
- [Colleges and Universities](#)
- [Corporate Cafeterias](#)
- [Correctional Facilities](#)
- [Elementary and Secondary Schools](#)
- [Hospitals](#)
- [Lodging and Hotels](#)
- [Restaurants](#)
- [Supermarkets and Grocery Stores](#)
- [Venues and Events](#)

FOOD DONATION GUIDANCE FOR MASSACHUSETTS BUSINESSES

[Food Donation Guidance](#) - RecyclingWorks partnered with state and local health officials, food rescue organizations, food banks, and organizations with established food donation programs to develop this guidance, which includes:

- 1) why businesses should consider food donation, 2) what foods can be donated, 3) food donation laws and liability protections, 4) food labeling, 5) finding and building a relationship with partner food rescue organizations, 6) food transportation, and more.
- RecyclingWorks will update this guidance as needed. Please contact us to propose any additions or updates that you think would support businesses in starting food donation programs.

[Food Donation Case Study](#) - Learn about food donation practices at Whole Foods Market and Westin Boston Waterfront Hotel as they partner with food rescue organizations to successfully divert nutritious food from disposal and provide it to people in need.

PROHIBICIÓN DE ELIMINACIÓN DE DESECHOS ORGÁNICOS COMERCIALES MASSDEP

Efectivo el 1 de Noviembre de 2022

Las empresas y instituciones de Massachusetts que generen **media tonelada dealimentos por semana** estarán sujetas a esta prohibición.



Maneras Fácil y Económico para Cumplir:

Evite el desperdicio de alimentos por el reutilización

Donar excedentes comestibles

Separe los restos de comida para la alimentación animal, la digestión anaeróbica o el compostaje



Contacta RecyclingWorks en Massachusetts para recibir ayuda para comenzar:
recyclingworksma.com | (888) 254-5525 | info@recyclingworksma.com

COMMUNITY SUPPORT

RecyclingWorks MA
Published by Samantha Salvatore · November 4, 2021 · 🌐

Businesses across City of Cambridge (Official) are starting food scrap diversion programs as part of the City's small business program. Scraps will go to Anaerobic Digestion, a process that captures methane from the waste and turns it into renewable energy. Shout out to these businesses we visited this week! *Revival Cafe, La Saison Bakery, Simon's Coffee Shop, Forage, Elmendorf Baking Supplies and Cafe, Honeycomb Creamery.* Interested in starting a program at your business? Contact us today! #nowastedfood



609
People reached

59
Engagements

Boost post

Compost Site Technical Assistance

Assist sites with composting food materials

Site layout and design

Operational best management practices

Pest and odor management

Workshops for compost site operators

recyclingworksma.com/learn-more/compost-site-technical-assistance

COMPOSTING FOOD SCRAPS AT MUNICIPAL FACILITIES



COMMUNITY TOOLKIT:

Adding Food Waste to a Yard Trimmings Compost Facility



SECTIONS:

- I. Why Do You Want to Compost Food Waste?
- II. Is Your Yard Trimmings Composting Site Food Waste Ready?
- III. Best Practices to Compost Food Waste
- IV. Food Waste Collection & Hauling Considerations
- V. Food Waste Composting Regulatory Requirements (State, Local)
- VI. Types of Food Waste to be Composted
- VII. Costs and Economic Considerations
- VIII. Compost Markets
- IX. Final Takeaways

Join us for the
2022 Fall Forum!
Nov. 9 10am-12pm

recyclingworksma.com/events/fall-2022-forum-webinar

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www.recyclingworksma.com

