



 **Waste Reduction and Resource Conservation**
TURI January 27, 2016




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 **MassDEP Waste Ban History**

- Solid Waste Master Plan
 - Reduce waste disposal and greenhouse gas emissions
- Introduced MassDEP Waste Ban Regulations in 1990
 - Easy to recycle or toxic items are banned from disposal as trash
 - 310 CMR 19.017 Waste Ban Regulations
 - Cardboard and Paper
 - Glass, Metal and Plastic Containers
 - Scrap Metal, Major Appliances
 - Tires, Lead Acid Batteries
 - Cathode Ray Tubes (old style TV's and Computer Monitors)
 - Leaves & Yard Waste
 - Clean Gypsum Wall Board
 - Wood, Asphalt Pavement, Brick and Concrete
 - Commercial Food Waste * New as of October 1, 2014



 **RecyclingWorks in Massachusetts**


- Helps businesses and institutions
 - Comply with MassDEP Waste Bans - **includes commercial food waste!**
 - Minimize waste through reduction, donation and diversion.
 - Save money
 - Improve Customer/Employee satisfaction
- Funded by MassDEP, delivered under contract by the Center for EcoTechnology

RecyclingWorks in Massachusetts

Services include:

- Online Resources
- Email and Phone Hotline
- Technical Assistance
- Events and Workshops
- WasteWise Program Administration



RecyclingWorksMA Website



Navigation: HOME | FIND A RECYCLER | FOOD WASTE | LEARN MORE | HOW TO | WASTEWISE | REUSE/EVENTS | ABOUT

ABOUT RECYCLINGWORKS
 Does your business need help recycling?
 RecyclingWorks in Massachusetts is a recycling assistance program that helps businesses and institutions maximize recycling, reuse, and food waste disposal opportunities.
 Use our "Find a Recycler" database to locate processors and haulers.
 Or, contact our HOTLINE to speak to one of our in-house experts. Call (888) 354-0428 or email info@recyclingworksma.com.
 Read More

Our Approach

- Meet customer where they are
- Determine goals
- Present a range of options









Estimate using Industry Standards

Restaurants



Click here for a printable, fill-in version of this Commercial Food Waste Disposal Ban threshold estimation guide for restaurants.

	Average Measurement	Material
Meals Served	0.5 lbs/meal	Food waste
Full-Time Employees	1,500 lbs/employee/year	Food waste
Disposed Waste [Full Service]	66 % of disposed waste by weight	Food waste
Disposed Waste [Fast Food]	51 % of disposed waste by weight	Food waste

If you serve 4,000 meals in one week, then:

0.5 lbs/meal * 4,000 meals served/week = 2,000 lbs/week = 1 ton of food waste in one week

Options for Compliance



The Food Recovery Hierarchy is a pyramid diagram with five levels from top to bottom: 1. Source Reduction, 2. Food Recovery - People (Food Banks, etc.), 3. Food Recovery - Animals (Petting Farms, etc.), 4. Composting (On-site, etc.), 5. Landfill/Anaerobic Digestion.

The screenshot shows a webpage titled 'Options for Complying with the Commercial Organics Waste Ban' with sections for 'Reduce', 'Donate', and 'Dispose'.

Find-A-Recycler Directory

HOME | FIND A RECYCLER | FOOD WASTE | LEARN MORE | HOW TO | WASTE WISE | NEWS/EVENTS | ABOUT

FIND A RECYCLER

Choose your Material: Choose a Hauler or Processor: Zip Code:

Search...

Looking for a recycler or composter for your business? You've found the right tool.

Welcome to the RecyclingWorks in Massachusetts Recycling Provider Search, a database of recyclers servicing your area.

- Use the search box above to refine your search based on material category, zip code or key word.
- Choose whether you want a hauler, who will pick up materials or a processor, who will accept materials that you drop off or mail in.
- If you enter your zip code, the search result will display with a proximity filter — the closest ones to your location will display first. If your search is more general, results will be displayed alphabetically.
- Your search results will take you to a Map Page where the results are displayed. You can learn more about a specific Recycler by clicking on their name, or clicking on the "thumb tack" on the map. You can also adjust the map view to zoom in or out.

Please keep in mind that for certain materials, recycling companies may be located outside of Massachusetts but will still serve your area.

The Center for EcoTechnology (CET) and MassDEP produced this list to help businesses find recycling service providers. Listing does not imply a recommendation or endorsement by CET or MassDEP.

Source Separation Guidance

The RecyclingWorks in Massachusetts program has worked with local health departments to develop recommended Best Management Practices (BMPs) for use and inform local oversight of commercial food waste collection. Commercial organic waste disposal ban affects any business or any one ton or more of food waste per week, effective October 1, 2014. Intended to serve as a resource to businesses and institutions and regulatory language and these practices may need to be modified. The RecyclingWorks program will consider revising the needed. Any suggestions should be sent to info@recyclingworks.org

Two meetings with local health officials were held: Springfield (7th Worcester) (March 20th, 2013). A survey was then sent in April to professionals, yielding 17 responses. RecyclingWorks presented a MassDEP Organics Subcommittee meeting held on June 10, in addition to a meeting with representatives of all of the major public health organizations in Massachusetts, who were given a chance to provide comments. This BMP document is based on the results of this process.

Kitchen Separation

Find a Recycler

BMP Background



- Best Management Practices based on
 - Two meetings with local health officials (Springfield, Worcester)
 - Survey sent to over 100 public health professionals
 - MassDEP meeting and participant review
- BMPs Provide:
 - General consensus for acceptable handling, storage and hauling of food waste

Kitchen Separation

- Source separation of food waste starts in kitchens and dish rooms.

Back of the House: Collection Process

- Food waste should be collected in dedicated receptacles
 - Containers should be leak proof, located at the points of generation, clearly designated & covered when not in use.




Back of the House: Containers

- Convenient locations
- Right sized



Signage


- Provide clear, concise message of what can and cannot be included



FOOD SCRAP COLLECTION FOR COMPOST FACILITY

YOU CAN INCLUDE:
All Food Scraps
Fruit & Vegetable Trimmings
Meat, Chicken, and Fish
Bones, Fats, and Shells
Baked Goods
Dairy Products
Coffee Grounds and Filters
Waxed Cardboard (in limited amounts)
Napkins
Paper Towels

DO NOT INCLUDE:
Rubber Gloves, Utensils, Plastic Wrap, Straws,
Plastic, Glass, or Styrofoam

PRODUCED BY: 







Hauler Collection Practices





- Collection frequency based on
 - Hauler routes
 - Truck capabilities
 - Collection container types
 - Site specific generation rate



Outdoor Storage Practices


- Containers should be closable, leak-free, water tight & secure
- All doors/hatches should be closed when not in immediate use
- The storage area should be clearly marked, easily cleanable & if necessary enclosed by fencing



Case Study:

The Lenox Hotel in Boston, MA

- Worked with RecyclingWorks to set up an off-site composting program
- Rolled program out in all 3 hotel restaurants
- Diverted 550 pounds of food waste in the first 2 days of operation
- Improved performance leading to measurable cost savings



Dining Service Provider initiatives

Project : Clean Plate

WE'RE GOING TRAYLESS

Trim Trax

FOOD RECOVERY NETWORK

Food Donation

- Perishable and Non Perishable
- Fresh or Prepared
- Packaged or Not Packaged
- Must follow food safety guidelines-
- <http://www.recyclingworksma.com/donate/>
 - Harvard Food Law and Policy Clinic Fact Sheets
 - Liability-Bill Emerson Good Samaritan Act
 - Tax Implications- recently updated
 - Date Labeling

Food Donation BMP

- Similar stakeholder input process
- Gathered consensus on guidelines for what can be donated, how to prepare and how to transport to preserve food safety
 - MassDEP, US EPA
 - Health Departments
 - Food Banks and Rescue Agencies
 - Generators
- Harvard Food Law and Policy Clinic-legal fact sheets on liability, date labeling and tax incentives

Food Donation

- Networking Organizations
 - Food Donation Connection <http://www.foodtodonate.com/>
 - Spoiler Alert <http://foodspoileralert.com/>
- Food Rescue Organizations
- Food Banks
- Receiving Facility <http://www.findafoodpantry.org/>


Cardboard Failed Load and Solution



Grocery Store



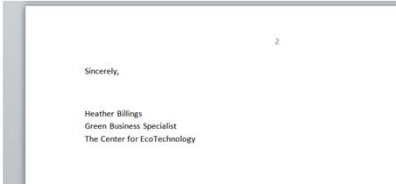
Grocery Distributor Take Back Program



Big Y Supermarkets-Reduction



Paper conservation



- Print Preview
- Adjust font size or margins
- Excel Sheet Fit To One Page
- Double side print
- Clear copy machine instructions to avoid mistakes

Building Materials Reuse

EcoBuilding Bargains
<http://ecobuildingbargains.org/>

Habitat For Humanity ReStores
<http://www.habitat.org/restores>



<http://www.recyclingworksma.com/reuse/building-materials/>

The Furniture Trust- Boston

- Connects used office furnishings with local schools, nonprofits and community organizations.
- Eco-Carpentry Challenge for schools



<http://www.thefurnituretrust.org/>

The Wish Project-Lowell


- Providing apartment furnishings to help families out of homelessness including beds, couches, curtains, dishes and clothing.
- <http://thewishproject.org/>



U Mass Amherst and Westfield State

U Mass Amherst

- Composting
- Reduction with trayless dining & smaller plates
- Then LeanPath



Westfield State

- LeanPath
- Composting

America's Food Basket/CERO

- Worked with RecyclingWorks to set up a food waste separation program for composting
- Great hauler/generator relationship



Gardner Ale House

- Worked with RecyclingWorks to set up a food waste separation program for animal feed



Data collection-reporting-recognition

Waste Prevention

Click on the appropriate button for worksheet instructions and more information on how to calculate quantity disposed, quantity prevented, avoided disposal costs, avoided purchasing costs, or revenue from waste prevention.

INSTRUCTIONS	
Quantity Disposed	Quantity Prevented
Avoided Disposal Costs	Avoided Purchasing Costs
Revenue From Waste Prevention	

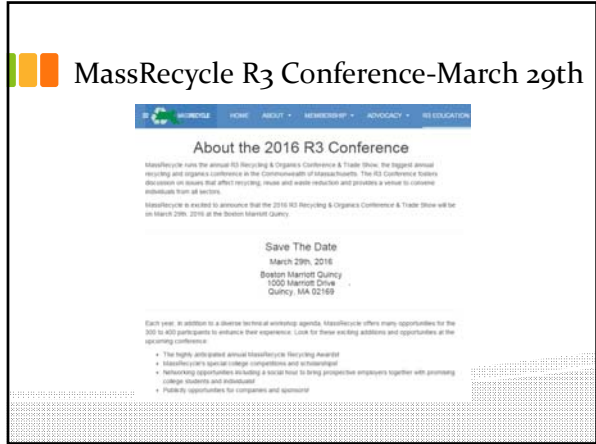
Waste Material	Activity
Municipal Solid Waste (MSW)	Quantity disposed (lbs) Waste Disposed
Materials Prevented/Recycled	
Paper (type unknown)*	Quantity prevented (lbs) Avoided disposal costs (\$) Avoided purchasing costs (\$)

<http://www.recyclingworksma.com/wastewise/>

Zero Waste Certification

Resource Conservation Resources

- <http://www.calrecycle.ca.gov/ReduceWaste/Business/>
- <http://www.recyclingworksma.com/resources-2/>



MassRecycle R3 Conference- March 29th

ABOUT THE 2016 R3 CONFERENCE

MassRecycle runs the annual R3 Recycling & Organics Conference & Trade Show, the biggest annual recycling and organics conference in the Commonwealth of Massachusetts. The R3 Conference features discussions on issues that affect recycling, reuse and waste reduction and provides a venue to connect individuals from all sectors.

MassRecycle is excited to announce that the 2016 R3 Recycling & Organics Conference & Trade Show will be on March 29th, 2016 at the Boston Marriott Quincy.

Save The Date
 March 29th, 2016
 Boston Marriott Quincy
 1000 Marriott Drive
 Quincy, MA 02269

Each year, in addition to a diverse technical workshop agenda, MassRecycle offers many opportunities for the 300 to 400 participants to enhance their experience. Look for these exciting additions and opportunities at the upcoming conference:

- The highly anticipated annual MassRecycle Recycling Award
- MassRecycle's special college competitions and scholarship
- Networking opportunities including a social hour to bring prospective employers together with promising college students and individuals
- Public opportunities for companies and sponsors



Additional Information

Visit us at
www.recyclingworksma.com

RecyclingWorks Hotline
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