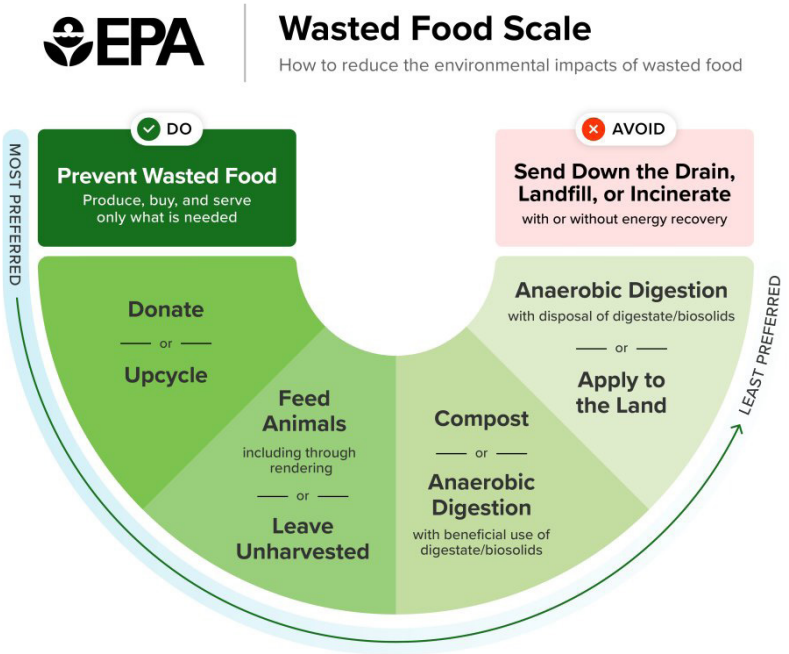
Wasted Food Tracking Guide: Alternative Solutions to a Comprehensive Waste Audit

Comprehensive waste audits can be time consuming and costly, and yet the results are only a snapshot of a business or institution's waste management program. Through funding from an EPA Healthy Communities grant, CET has developed this resource to help businesses and institutions confidently conduct a self-assessment of their wasted food locations and quantities to guide decision making for implementing reduction, donation, and diversion programs.

1. **START HERE** | Before implementing any waste reduction strategy or embarking on a time-consuming waste audit, businesses and institutions can clarify their goals to form an effective plan of action. Some key questions to consider include:

What do you want to accomplish?	
Is your business subject to regulation? Do you suspect your business is out of compliance?	
What do you want to know about your waste? Would a spot check be enough?	
Are you seeking evidence to prove to decision makers that action is necessary?	
Are you looking to measure in weight or volume? Volume is often easier than weight (container fullness vs. weighing on a scale). Volume can be converted into weight using EPA metrics.	
Do you already have a tracking system in place? Is it working well for you and your managers? How do managers act with the information-knife skills training, purchasing or menu decisions, etc.? Are all food generation areas being tracked?	

It is important to note that the EPA Wasted Food Scale should guide all waste reduction strategies. CET bases our recommendations on the hierarchy which prioritizes waste reduction, reuse, and recycling over disposal. Businesses can start anywhere on the scale and move around as they find opportunities.



2. **TRACKING & MEASURING**
   a. Estimation tools are not meant to provide perfect numbers, but they are a great place to start. Businesses and institutions can use estimation tools to:
      i. Estimate if the business might be subject to a law or regulation
      ii. Identify opportunities for source reduction and food donation
      iii. Assist in conversations with haulers regarding container size and quantity
      iv. Figure out what avoided disposal cost/ value would be (these avoided costs can be used for other programs)

Note: *There are estimations for many sectors based on industry data and CET's own experience in the field. If your operations don't exactly fit the provided sectors, you can mix and match for the specific facility uses.*

b. Waste audits or waste characterizations are more thorough, but are only a snapshot due to changes in season, menu, population, etc. Recognize the fluidity of your business' waste streams/operation, and don't let an inability to get 'perfect' numbers stop you from taking the next step.
   i. EPA Food Waste Audit Guide
   ii. NERC School Waste Audit Guide
c. Tracking resources:
   i. CET's Food Waste Tracking Sheet
   ii. EPA Waste Log - identify and record food loss
   iii. Philadelphia Waste Generation Calculator Tool - weigh bags and containers
d. Smart scale analysis systems (LeanPath, Phood, Winnow) are best suited for large institutions and there is a fee for this service.
e. Volume-to-weight conversions from the EPA are commonly used. There are a variety of metrics-based assumptions based on the composition of food scraps and other materials. Many haulers use conversions for their reporting as they do not have on-board scales or the ability to weigh at each stop. You may want to weigh a sample gallon to find out your specific density for future use. A good average is 4lbs/gallon.

3. **RECYCLING**
   a. Assess your material streams to identify recyclable items that may be in the wrong stream and/or trash in the recycling or food scraps. Uncorrected contamination leads to copycat users and reinforces the wrong message about proper sorting.
   b. Diverting food scraps and recyclables may allow resizing of the waste services by reducing dumpster size or frequency of pickup.

4. **AREAS OF FOOD GENERATION** | Even the most efficient kitchens have food scrap waste. Kitchen area experts (chefs, waitstaff, bussers, dishwashers, etc.) can be extremely helpful by participating in tracking and observation of food waste generation in different parts of their operations. Some areas to consider include:
   a. **Prep** | Provide containers to weigh or measure food waste. After the evaluation, follow-up on techniques to reduce food waste.
      i. At the prep stations for every meal, place a food scrap collection container nearby to divert all trimmings. This can be a countertop container, 5-gallon bucket on the floor, or small barrel.
         A. Look at the food scraps. Can there be additional knife skills training for maximizing product use, or can by-products be used for other recipes such as soups and stocks, natural food coloring, breadcrumbs, etc.? Make note of this in the CET Tracking Guide.



   b. **Dishwasher area** | Provide containers to measure food waste. Follow-up actions can be based on evaluations and measurement.
      i. Divert food scraps from plates, restaurant pans, pots, etc. out of the trash into designated container or barrel.
      ii. Do you (or the dishwashing staff) notice any trends of discarded food which can affect portion sizes, recipe adjustment, storage procedures, etc?
   c. **Line** (where food is cooked) | Provide measurement containers to learn what food is discarded in this area.
      i. This location is likely to have minimal food scraps generated, but it is important to capture any burned, dropped, or leftover ingredients to determine if there are any training or infrastructure adjustments that may be needed.
   d. **Food Storage** (dry, refrigerated, and frozen) | Measure and assess lost food due to damaged packaging, leftover items past date, or items not rotated first in first out.
      i. Dating ingredients and using leftover food in other dishes are two great methods of wasted food reduction.
      ii. Food items close to date can be used in a nightly special, served for employee meals, or donated.
   e. **Events** | Measure and assess excess or leftover food.
      i. Even with the best planning and strict RSVP procedures, there likely will be excess food from events.
      ii. Leftover unserved food could be shared with employees or donated.
      iii. Box lunches are a great entry point for starting a donation program, as the food is already prepared and packaged.

a. **Front of House** | Measure using a separate container for food scraps. Ways to measure include:
   i. Users sort themselves
      A. Not all the food scraps will likely be captured.
   ii. Watch users as they discard items
      A. Volunteers/monitors can survey users for the reason they are discarding their food (didn't have time to eat, mislabeled buffet item, etc.)
   iii. Have staff intercept trays or plates before they are discarded and sort out the food scraps.
   iv. Do a sample waste sort/audit of a meal, or other period of time, and extrapolate the data.
      A. Arrange to have custodial staff put aside sample bags.
      B. Set up a sorting area with all the potential categories you are looking to create programs for (i.e., could have been donated or shared, liquids, recycling, trash/contamination, food scraps, tray/plate).
      C. Put on gloves, roll up your sleeves, and start sorting! Be sure to document with photos and measurements to evaluate and propose system changes.
      D. Note: Even the best waste audit is a snapshot. Wasted food quantities can vary depending on season, menu, attendance, etc.



Tip: Watch for potential contamination that could be reduced, such as switching from single service condiment packets to bulk dispensers.

Now that you have gathered metrics and observed the composition of wasted food, you can now make decisions on what you can reduce, donate and divert which will reduce the overall trash that needs to be disposed of. This will help you answer the questions generated at the beginning of this process. Please review the ReFed Policy Finder and determine if you are subject to wasted food diversion requirements by state.

Implementing a waste reduction strategy requires careful planning, monitoring, and collaboration with stakeholders. By following the waste hierarchy, empowering staff to provide feedback and ideas on what they are observing, and collecting and interpreting food waste data, businesses and institutions can reduce their waste and may save money on avoided disposal costs. CET can assist in talking through these strategies in more detail.

Total Wasted Food Opportunity

Trash – (Reduce + Donate + Divert) – Recycle = Remaining Trash

SUCCESS STORY

A health care organization in Massachusetts wanted to determine if they were subject to the ½ ton per week threshold of the Commercial Food Waste Ban, so their chef launched a temporary measurement and tracking program. Initial results were 640 pounds generated per week, which was below the threshold, but the chef didn't just stop with that information. He looked carefully at the food being discarded and identified items that could be repurposed for other meals, which reduced the remaining weekly food waste weight by 12.5% to 560 pounds!

CET works with businesses, non-profits, hospitals, farms, colleges and universities, schools, and other organizations to improve their operations through energy efficiency, renewable energy, food waste reduction, donation, diversion, and recycling programs.

CET

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