# EPA TOOLS AND PROGRAMS FOR SUSTAINABLE FOOD MANAGEMENT
# APRIL 7TH, 2016

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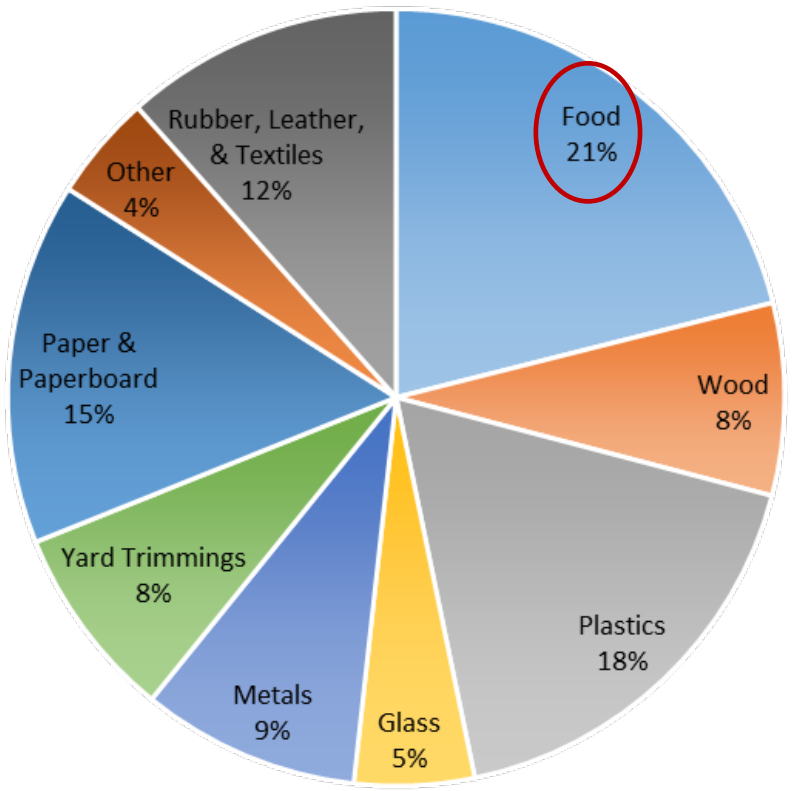
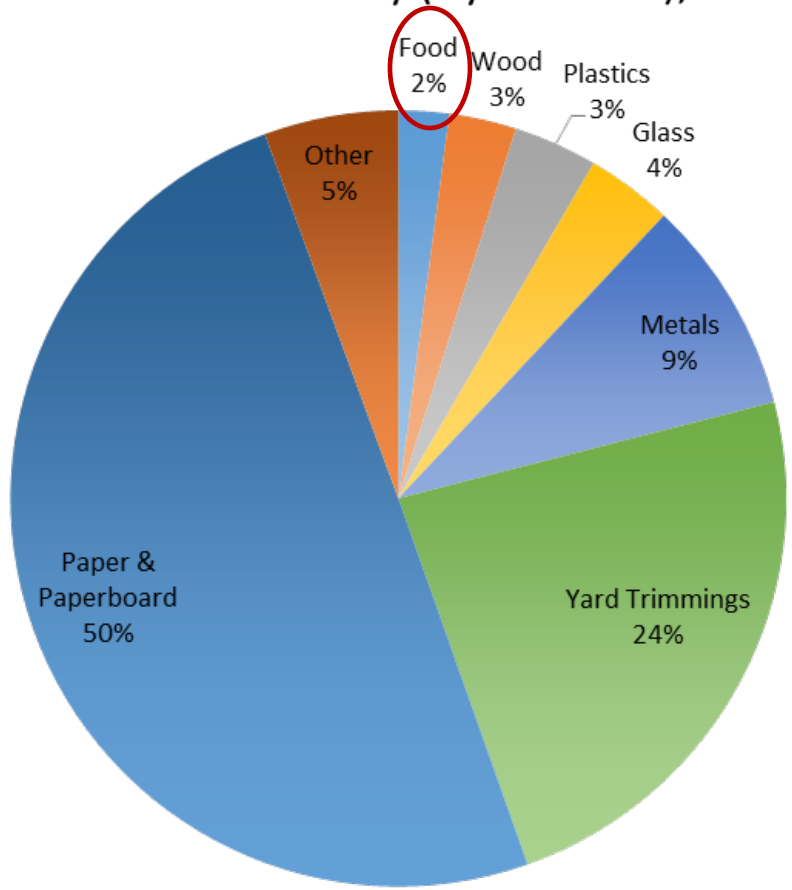
U.S. ENVIRONMENTAL PROTECTION AGENCY

# FACTS ABOUT WASTED FOOD IN THE U.S.

- In 2013, Americans threw away 37 million tons of food, and only composted 5% of it.
- The food that gets wasted and tossed out each day in the U.S. is enough to fill the Rose Bowl Stadium.

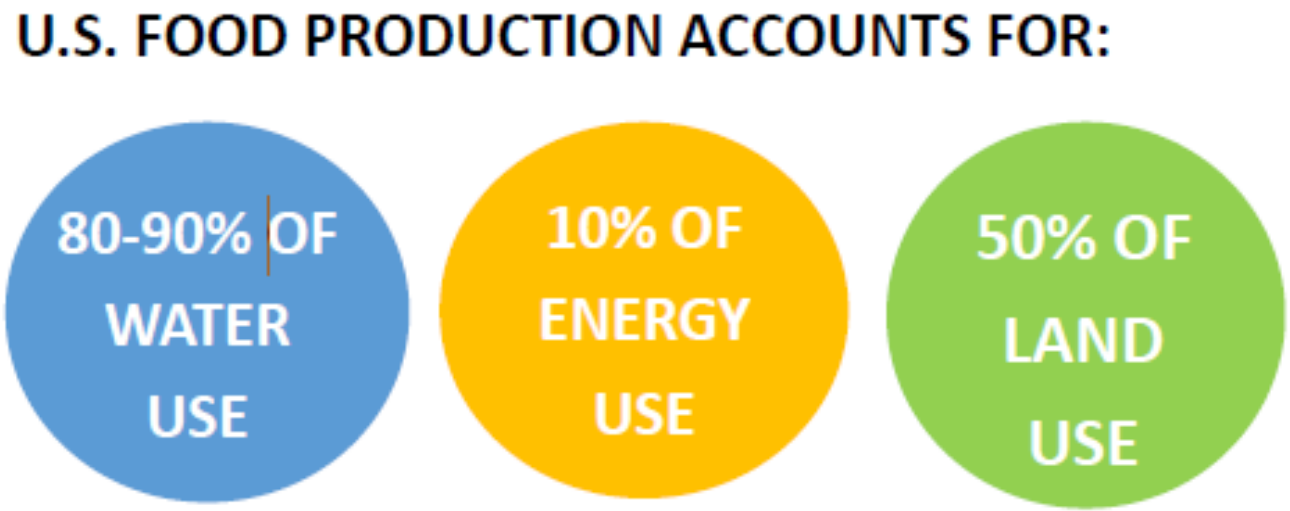
# OUR LARGEST WASTE STREAM IS ALSO OUR LEAST RECYCLED



# WHY DOES THIS MATTER?

- Food in landfills creates methane
- Wasted food = wasted water, resources, and energy
- At the same time, 1 in 7 U.S. households are food insecure



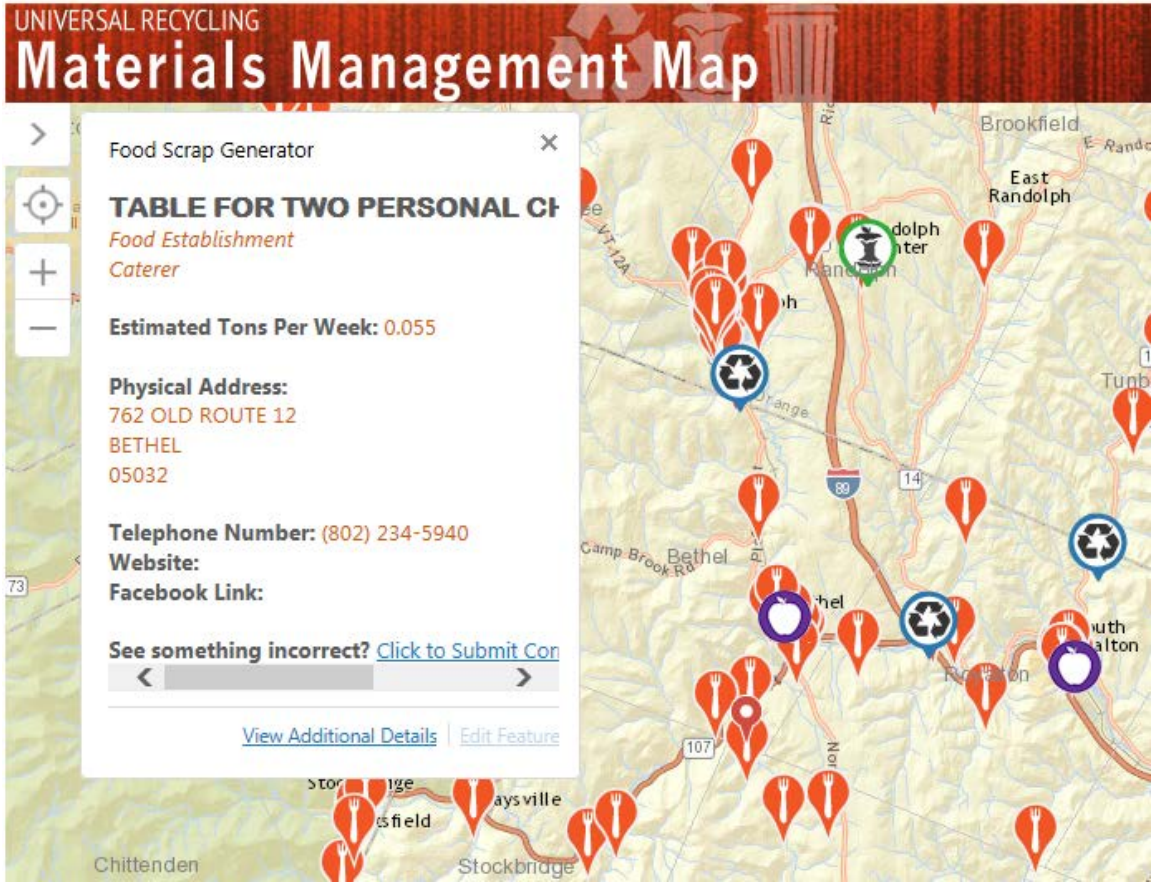
# WHITE HOUSE, EPA & USDA NATIONAL GOAL

# EPA'S TOOLS AND PROGRAMS FOR SUSTAINABLE FOOD MANAGEMENT

- Wasted FOOD Mapping Tool
- Food: Too Good to Waste
- Local Area Food Recovery Guides
- Food Recovery Challenge
- Managing and Transforming Waste Streams Tool

# WASTED FOOD MAPPING TOOL

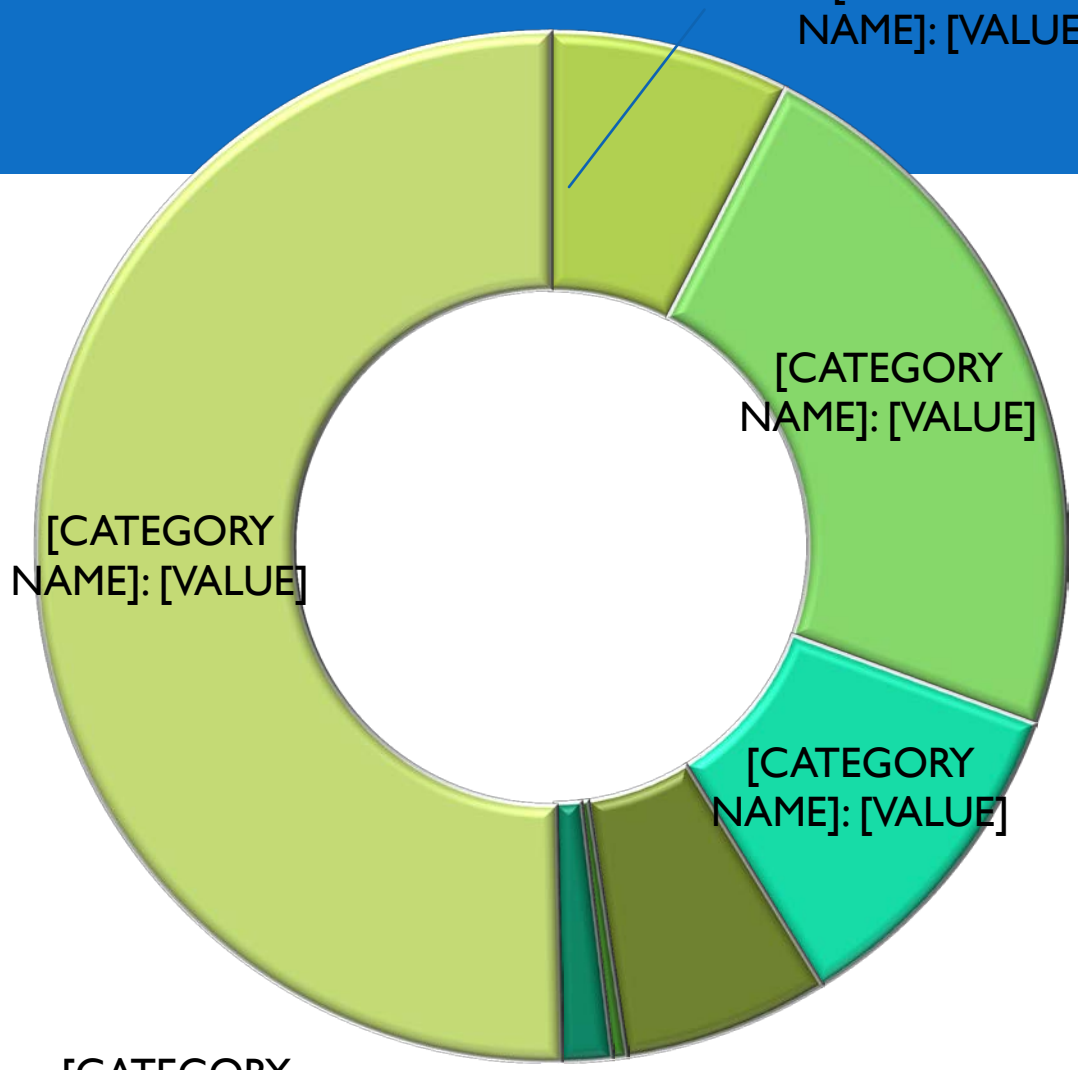
- What will it do and who should use it?
  - Help users identify opportunities to decrease the amount of food going to landfill by:
    - Mapping potential "generators" of wasted food and estimating how much may be generated
    - Mapping potential "processors" for that wasted food, i.e. food banks, animal farms, WRRFs
  - Potential users of the tool:
    - A state, city, or county looking for an estimate of how much wasted food is generated within their locality, who the largest generators might be, and what alternatives to landfills exist
    - A prospective project developer looking into the feasibility of an AD or compost facility



# THE "GENERATORS"

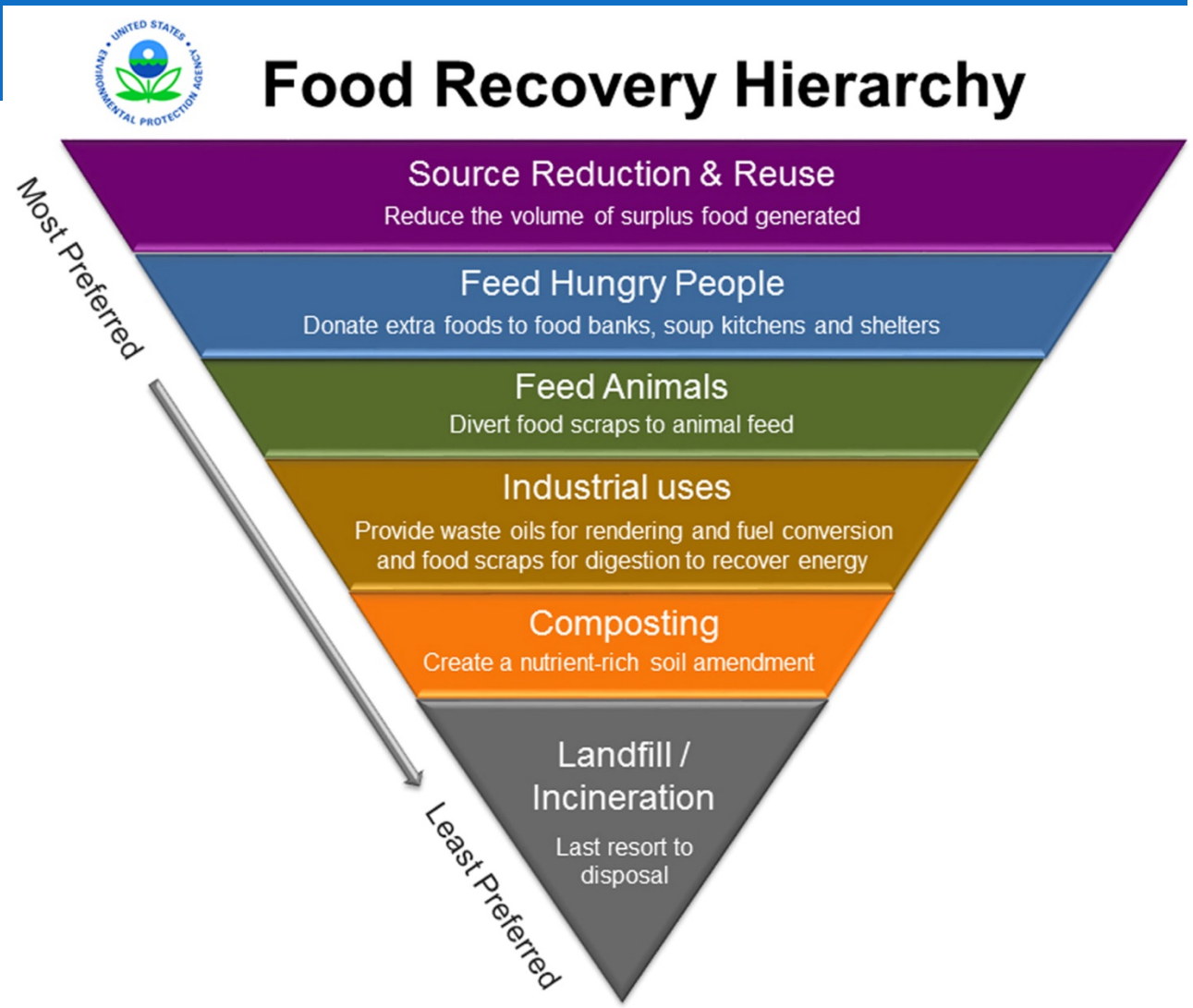
**The map will show--**

- **The exact location of approximately 1.3 establishments, representing 84 NAICS codes, grouped into seven categories:**
  - Food manufacturers & processors
  - Food wholesalers & distributors
  - Educational institutions
  - Hospitality industry
  - Correctional facilities
  - Healthcare industry
  - Food services sector
- **The exact location of food banks**
- **The service area of communities w/ organics collection programs**



# THE "PROCESSORS"

- **Processors will be mapped by zip code. They include:**
  - 319 Food Banks
  - ~ 79,000 animals farms
  - ~ 1,400 AD facilities
  - ~ 2,000 composting facilities



# CURRENT PROJECT STATUS

- Phase 1: Create a geodatabase identifying the location, contact information, and the estimated tonnage of food residuals generated by entities including:
  - Institutional food services such as prisons and hospitals,
  - Commercial food services such as restaurants and grocers,
  - Industrial food operations such as canneries, and
  - Residential collection programs.

Complete

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- Phase 2: Create a geodatabase identifying the location and contact information of facilities to manage the wasted food, including:
  - Organizations collecting excess food to feed people or animals,
  - Organizations collecting wasted food to create beneficial products such as composting operations and anaerobic food waste digesters.

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- Phase 3: Develop an online mapping tool that displays the information described above according to criteria set by the user (e.g., food residuals generated by zip code).

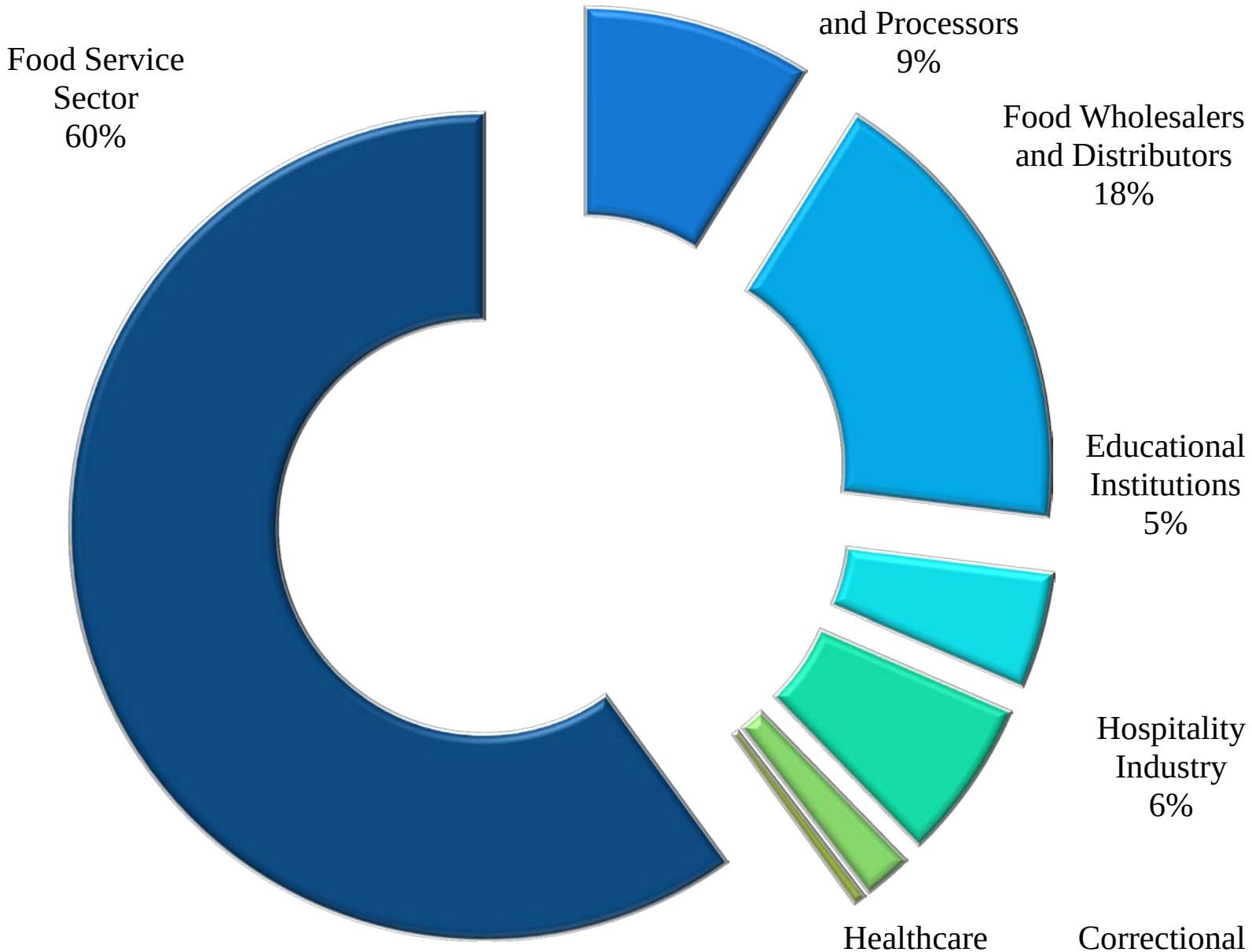
Almost Complete

# HOW DID WE ESTIMATE GENERATION RATES?

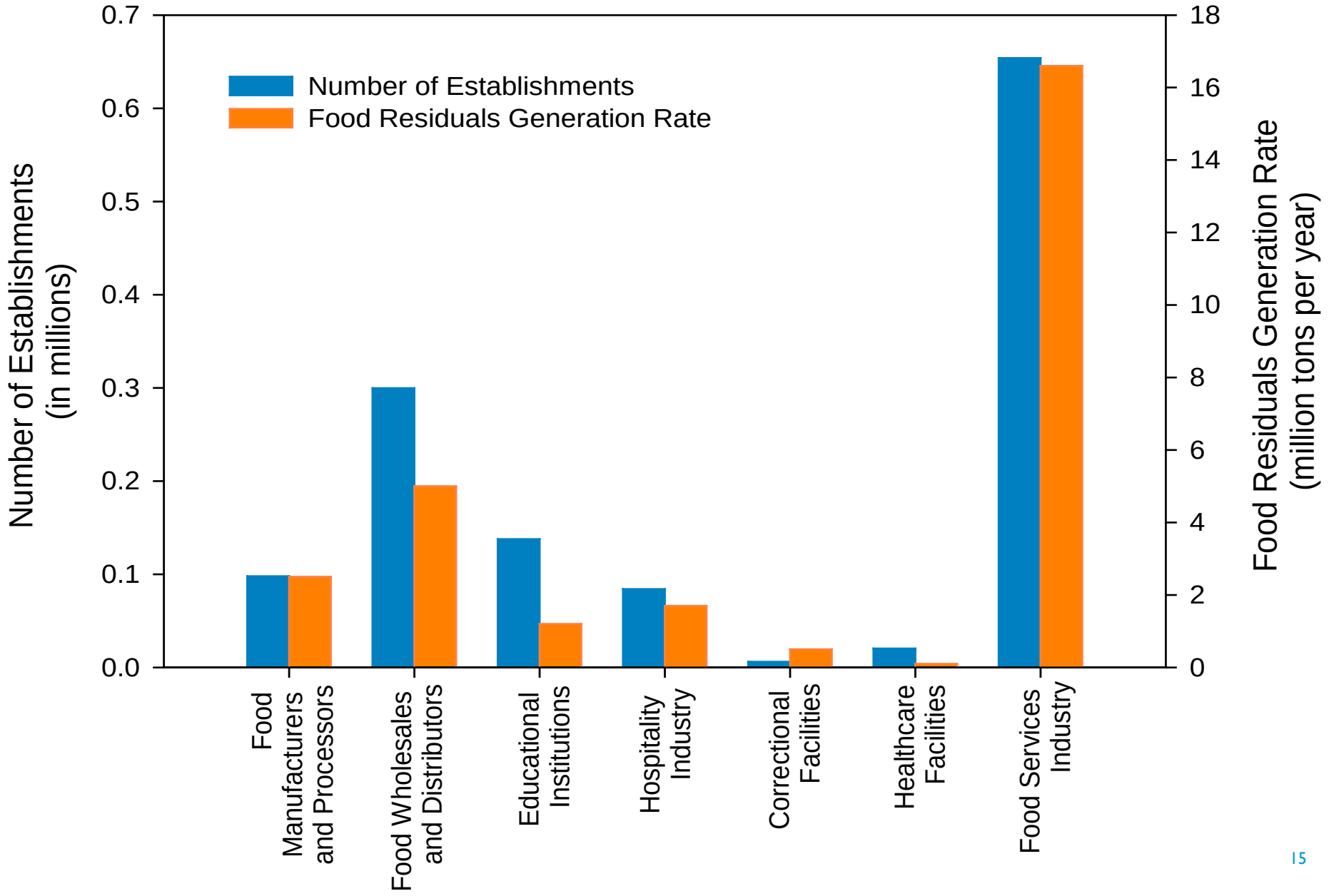
| Sectors | Variable Parameter used for Food Residuals Estimation | Unit Food Residuals Generation Rate | Source for Food Residuals Generation Rate |
|---|---|---|---|
| Food Manufacturer and Processors (including Bakeries) | yearly revenue ($) | 0.053 lbs/$ revenue/year | FWRA (2014) |
| Food Wholesalers and Distributors (Not including Grocery Stores) | yearly revenue ($) | 0.01 lbs/$ revenue/year | FWRA (2014) |
| Grocery Stores | # employees | 3,000 lbs/employees/year | CT/MA/SC |
| Hospitality Industry | # employees | 3.38 rooms/employee<br>345.64 lbs/room/year | MA |
| | | 1,984 lbs/employees/year | CCG (2006) |
| Correctional Facilities | # employees | 5.28 inmates/employee<br>1.0 lbs/inmate/day | CT/MA/SC |
| | | 3.75 inmates/employee<br>1.0 lbs/inmate/day | |

# THE RESULTS

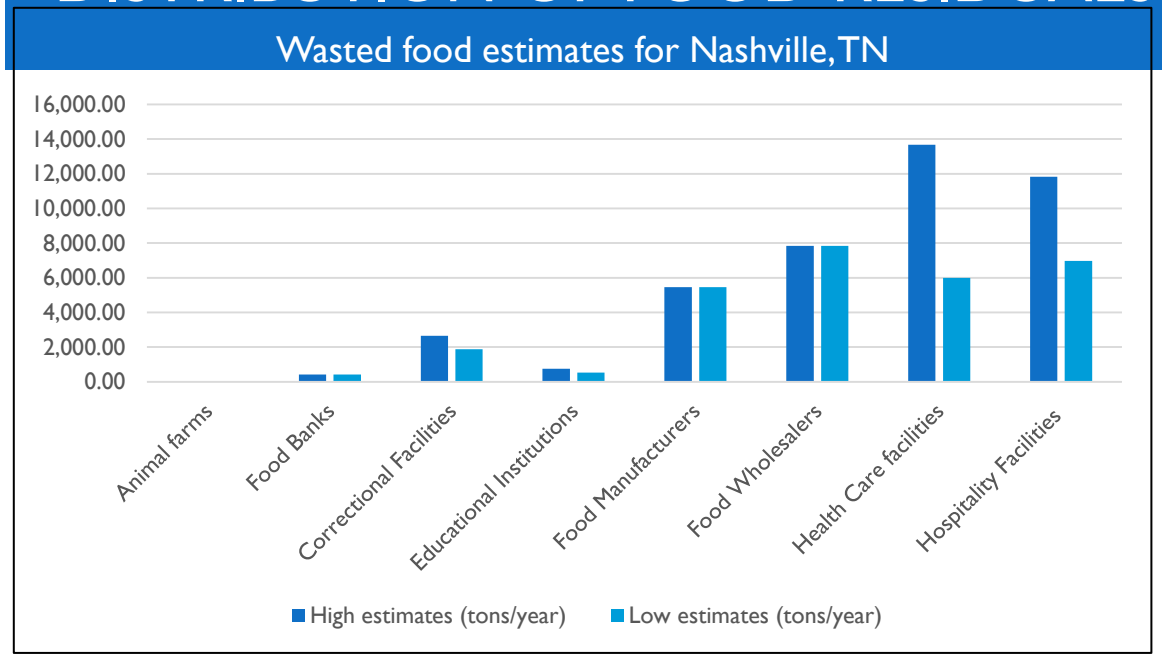
EPA
Wasted Food Generation in the US – Sources, Amounts, and Estimation Methodologies

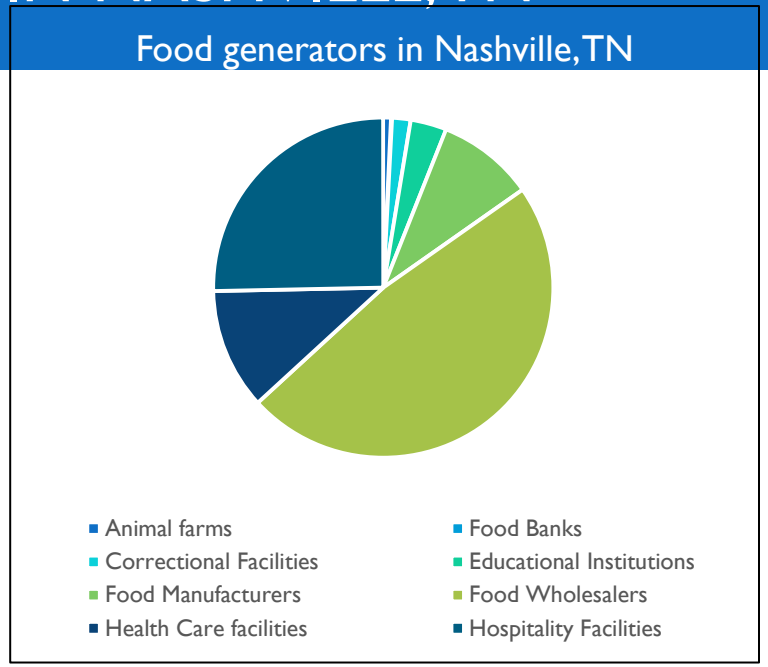

Food Service Sector 60%
Food Manufacturers and Processors 9%
Food Wholesalers and Distributors 18%
Educational Institutions 5%
Hospitality Industry 6%
Healthcare Facilities 0%
Correctional Facilities 2%

# ANALYSIS FROM THE REPORT



# EXAMPLE MICRO ANALYSIS FROM DATABASE: DISTRIBUTION OF FOOD RESIDUALS IN NASHVILLE, TN




| | Number of Generators | High estimates (tons/year) | Low estimates (tons/year) |
|---|---|---|---|
| Animal farms | 7 | 0.00 | 0.00 |
| Food Banks | 1 | 418.82 | 418.82 |
| Correctional Facilities | 17 | 2,643.15 | 1,877.24 |
| Educational Institutions | 33 | 757.76 | 525.63 |
| Food Manufacturers | 89 | 5,452.00 | 5,452.00 |
| Food Wholesalers | 462 | 7,840.00 | 7,840.00 |
| Health Care facilities | 111 | 13,663.97 | 5,992.97 |
| Hospitality Facilities | 244 | 11,825.63 | 6,963.43 |
| **Total** | **964** | **42,601.33** | **29,070.09** |

# NEXT STEPS

- Publish map of what we have ASAP – data goes stale fast!
- Gather stakeholder feedback
- If enough demand, pursue further partnership and funding opportunities to continue development

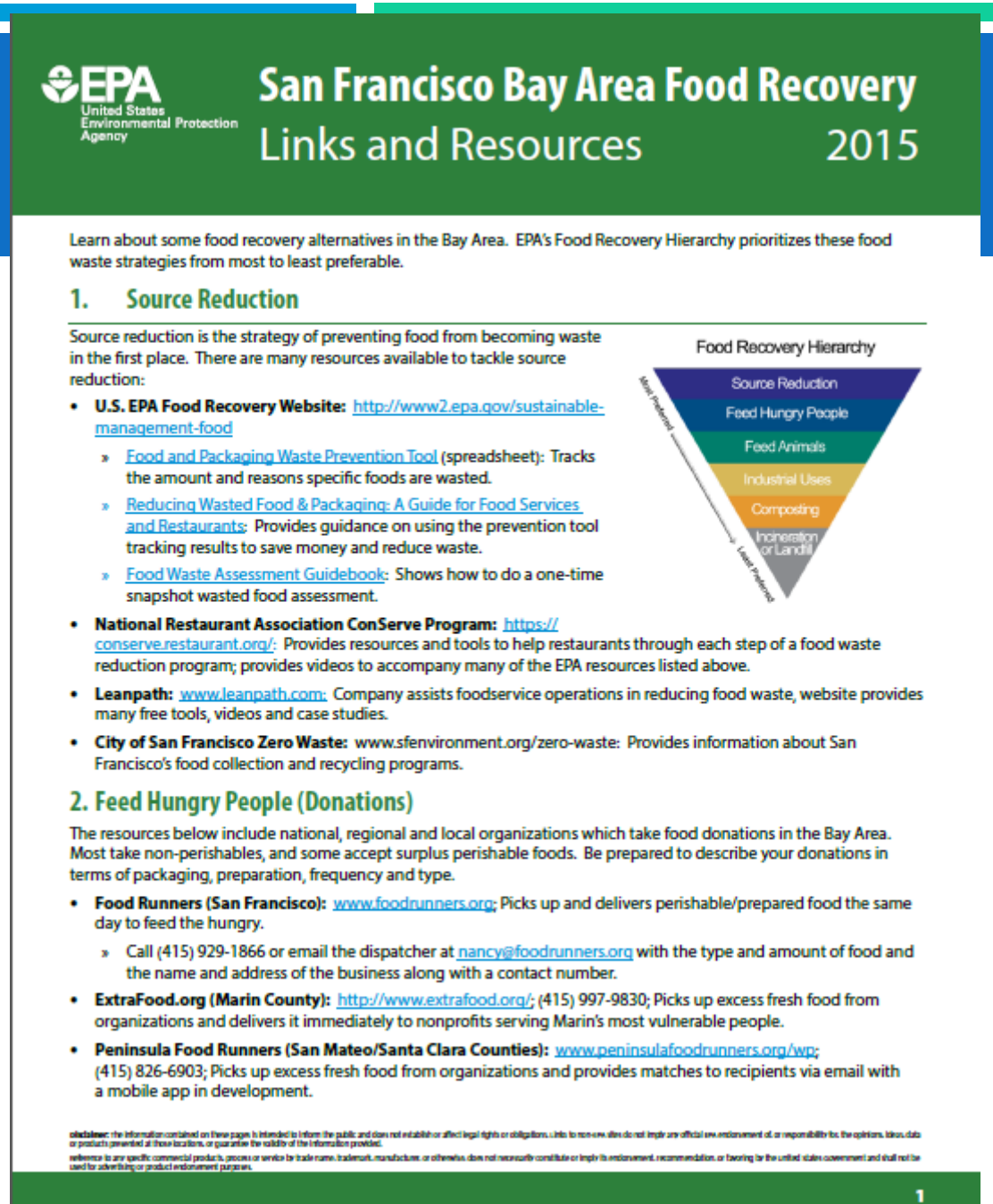
# FOOD: TOO GOOD TO WASTE

- Toolkit to reduce household food waste
- It's about PREVENTION
- Based on available research on why people waste food – their values, motivations, and behaviors
- Results from pilots and scale-up projects indicate that implementation of Food Too Good To Waste could influence a 25% decrease in household food waste.
- https://www.epa.gov/sustainable-management-food/food-too-good-waste-implementation-guide-and-toolkit

Saves a family of four about $1600 per year!

# LOCAL AREA FOOD RECOVERY GUIDES

- Sections on:
  - Source Reduction
  - Donation
  - Feeding Animals
  - Industrial Uses
  - Composting
- Los Angeles: https://www.epa.gov/sustainable-management-food/links-and-resources-about-food-recovery-los-angeles
- Bay Area: https://www.epa.gov/sustainable-management-food/links-and-resources-about-food-recovery-san-francisco-bay-area



EPA United States Environmental Protection Agency

## San Francisco Bay Area Food Recovery Links and Resources 2015

Learn about some food recovery alternatives in the Bay Area. EPA's Food Recovery Hierarchy prioritizes these food waste strategies from most to least preferable.

### 1. Source Reduction

Source reduction is the strategy of preventing food from becoming waste in the first place. There are many resources available to tackle source reduction:

Food Recovery Hierarchy



- **U.S. EPA Food Recovery Website:** http://www2.epa.gov/sustainable-management-food
  - Food and Packaging Waste Prevention Tool (spreadsheet): Tracks the amount and reasons specific foods are wasted.
  - Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants: Provides guidance on using the prevention tool tracking results to save money and reduce waste.
  - Food Waste Assessment Guidebook: Shows how to do a one-time snapshot wasted food assessment.
- **National Restaurant Association ConServe Program:** https://conserve.restaurant.org/: Provides resources and tools to help restaurants through each step of a food waste reduction program; provides videos to accompany many of the EPA resources listed above.
- **Leanpath:** www.leanpath.com: Company assists foodservice operations in reducing food waste, website provides many free tools, videos and case studies.
- **City of San Francisco Zero Waste:** www.sfenvironment.org/zero-waste: Provides information about San Francisco's food collection and recycling programs.

### 2. Feed Hungry People (Donations)

The resources below include national, regional and local organizations which take food donations in the Bay Area. Most take non-perishables, and some accept surplus perishable foods. Be prepared to describe your donations in terms of packaging, preparation, frequency and type.

- **Food Runners (San Francisco):** www.foodrunners.org; Picks up and delivers perishable/prepared food the same day to feed the hungry.
  - Call (415) 929-1866 or email the dispatcher at nancy@foodrunners.org with the type and amount of food and the name and address of the business along with a contact number.
- **ExtraFood.org (Marin County):** http://www.extrafood.org/; (415) 997-9830; Picks up excess fresh food from organizations and delivers it immediately to nonprofits serving Marin's most vulnerable people.
- **Peninsula Food Runners (San Mateo/Santa Clara Counties):** www.peninsulafoodrunners.org/wp; (415) 826-6903; Picks up excess fresh food from organizations and provides matches to recipients via email with a mobile app in development.

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# FOOD RECOVERY CHALLENGE

- EPA's initiative to prevent and reduce wasted food.
  - Participants:
    - Prevent and divert food waste
    - Save money
    - Reduce environmental impact
  - Endorsers:
    - Promote sustainable food management
    - Educate about the environmental consequences of wasted food
    - Recruit participants

https://www.epa.gov/sustainable-management-food/food-recovery-challenge-frc

# MANAGING AND TRANSFORMING WASTE STREAMS TOOL

*SHARING HOW LOCAL GOVERNMENTS CAN SHIFT THEIR COMMUNITY'S SOLID WASTE STREAM AWAY FROM DISPOSAL AND TOWARDS WASTE REDUCTION, MATERIALS REUSE AND RECOVERY*

- A planning tool for
  - local or regional solid waste plan updates
  - zero waste plans
  - community-based initiatives
- Sample of food waste measures:
  - Zero Waste Goals for Organics
  - Landfill Ban – Organics
  - Backyard / Neighborhood Composting
  - Expanded Municipal Collection – Food Scraps
  - Food Donation – Businesses
  - Food Waste Outreach & Prevention (consumers)
  - Food Scraps Collection Program with Private Haulers

http:/www.epa.gov/transforming-waste-tool

**April 14th Webinar**
**Register at epa.gov/smm**

# THANK YOU!

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