

US EPA Wasted Food Opportunities Map

Version 1.0

September 2017



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Map Overview

- Identifies **potential wasted food generators** and estimated quantities from institutional, commercial & industrial facilities
- Identifies **potential recipients** of wasted food
- Best used in combination with other publicly available complementary tools and information to identify strategic opportunities for location-specific management of food loss & waste
- Potential users include:
 - Cities, states, or counties wanting a better understanding of wasted food generation and potential recipients
 - Prospective project developers (e.g., compost or AD facility)
 - Private sector and nonprofits working to reduce wasted food
 - Manufacturers with excess product



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Functionality of Map

The map does provide:

- Geographic locations of potential generators and recipients
- Estimates of wasted food generation rates at the establishment level
- Estimated edible fraction of wasted food for grocery stores & supermarkets only
- Plate waste estimates for colleges & universities only
- Service area for communities with organics collection programs
- Select contact information

The map does not provide:

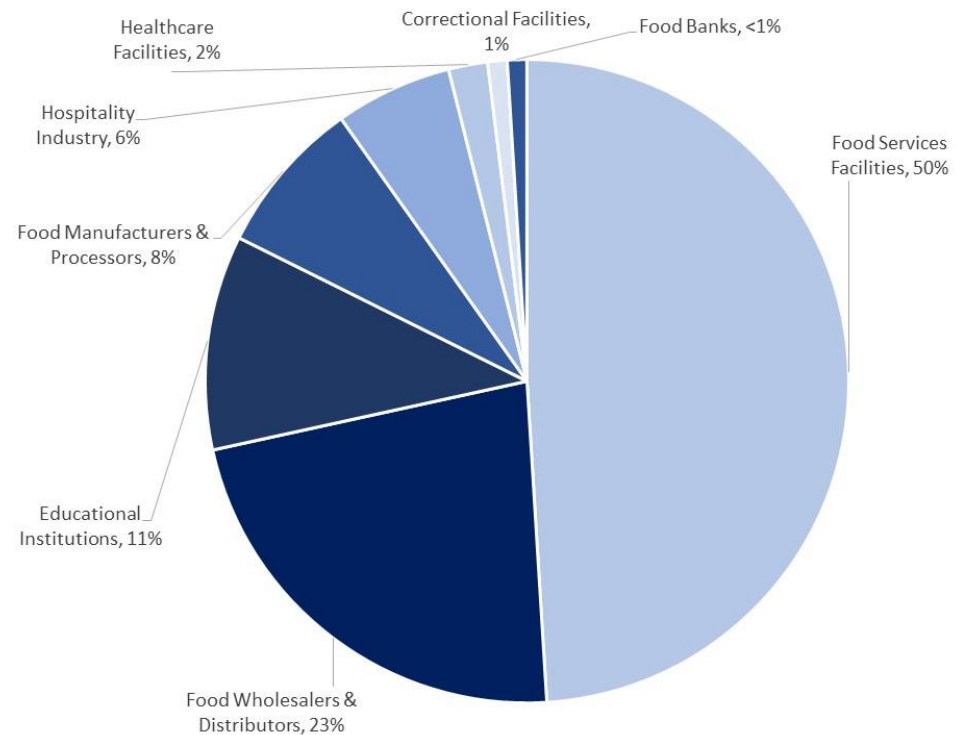
- Exact measurements of wasted food
- Indication of existing generator diversion activity
- Capacity of potential recipients to accept wasted food
- Estimates of on-farm wasted food (except for animal farms) or that from the food services sector



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Potential Generators of Wasted Food

- More than 1.3 million wasted food-generating establishments identified
- More than 660,000 establishments mapped across 89 industries
- Industries grouped as follows:
 - Correctional facilities
 - Educational institutions
 - Food banks
 - Food manufacturers & processors
 - Food wholesalers & distributors
 - Healthcare facilities
 - Hospitality industry
 - *Food services sectors
(not mapped in this version)



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Examples of Potential Generators

NAICS Code	North American Industry Classification System (NAICS) Code Description
112320	Broilers and other meat type chicken production
112330	Turkey production
311230	Breakfast Cereal Manufacturing
424910	Farm supplies merchant wholesalers (animal feeds except pet food)
445110	Supermarkets and other grocery (except convenience) stores
611310	Colleges, universities, and professional schools
713210	Casinos (except casino hotels)
721110	Hotels and motels
721120	Casino hotels
922140	Correctional institutions (prisons)
622110	General medical and surgical hospitals



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Estimated Wasted Food Generation Rate Calculation

1. Identify industry-specific methodology for generation estimate
2. Acquire establishment-specific data (buy or download)
 1. From Hoover's, Inc., commonly available business statistics such as annual revenue and employee count
 2. From National Center for Education Statistics, number of students, type of schools
3. Plug establishment-specific data into identified methodology to generate estimate for each establishment
4. Where establishment-level data was not available, no estimate was generated but establishment was mapped

Methodology:
FWRA, 2014

From Hoover's, Inc. for
each establishment

Food Manufacturers and Processors Wasted Food $\left(\frac{\text{tons}}{\text{year}}\right) =$

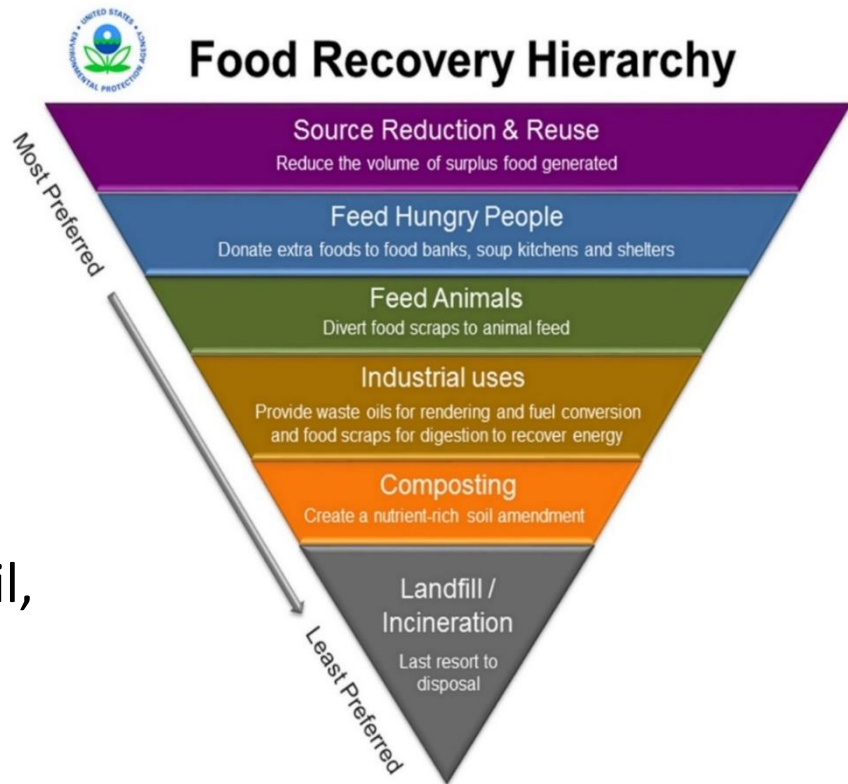
$$\text{Facility's Annual Revenue (\$)} \times 0.053 \frac{\text{lb}}{\text{Annual Revenue (\$)}} \times \frac{\text{tons}}{2,000 \text{ lb}}$$



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Potential Recipients of Wasted Food

- Recipients represent more than:
 - 300 food banks
 - 1,400 AD facilities
 - 2,000 composting facilities
 - 79,000 animal farms
- Data sources include Feeding America, American Biogas Council, EPA's AgStar program, state composting registries



 **Rethink**

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

How Users Can Leverage the Map

- Combine with other publicly available complementary tools and information to **identify strategic opportunities** for location-specific management of food loss & waste
- Support decision-making through identification of:
 - potential sources of food for rescue and reuse;
 - feedstocks for compost, anaerobic digestion, or other wasted food processors;
 - potential infrastructure gaps for managing wasted food; and,
 - alternatives to sending wasted food to landfill.
- Download data, and adapt/adopt methodology, if desired



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Limitations

- Methodologies are based on sometimes dated and limited measured data
- Food services establishments are not included and represent 50% of universe
- On-farm loss not addressed
- Percentage of establishments with wasted food generation estimates varies widely by industry
- Set of potential recipients is limited, and there is no indication of capacity to accept wasted food
- Existing generator diversion activity not reflected
- Edible fraction of wasted food estimate available only for select industries



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Next Steps

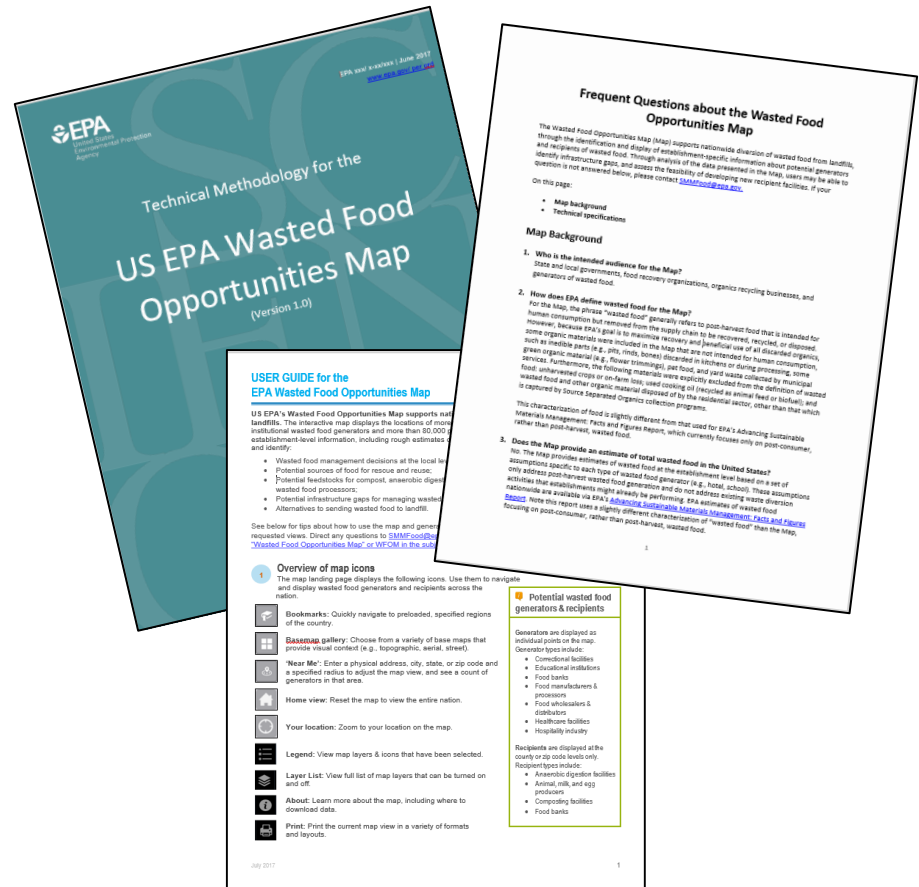
- Listen & respond to user feedback
- Add food service sector data
- Update data & methodology on roughly two year cycle



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Map Resources

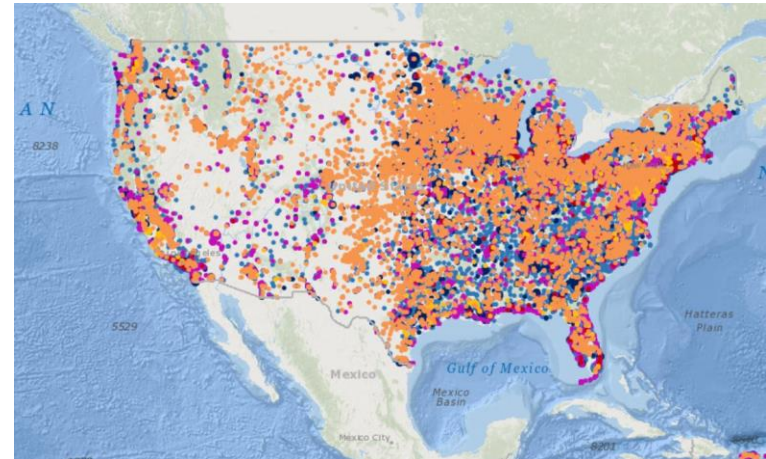
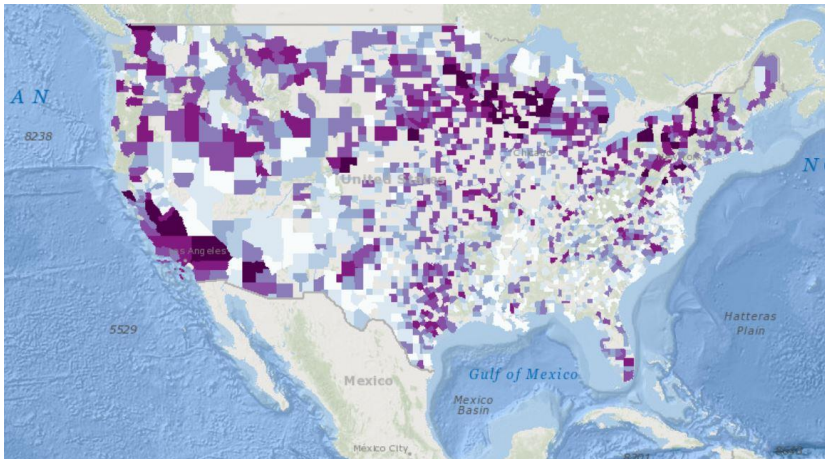
- Technical methodology
- FAQs
- User Guide
- Data



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Questions?

- For future questions, please email SMMFood@epa.gov



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW