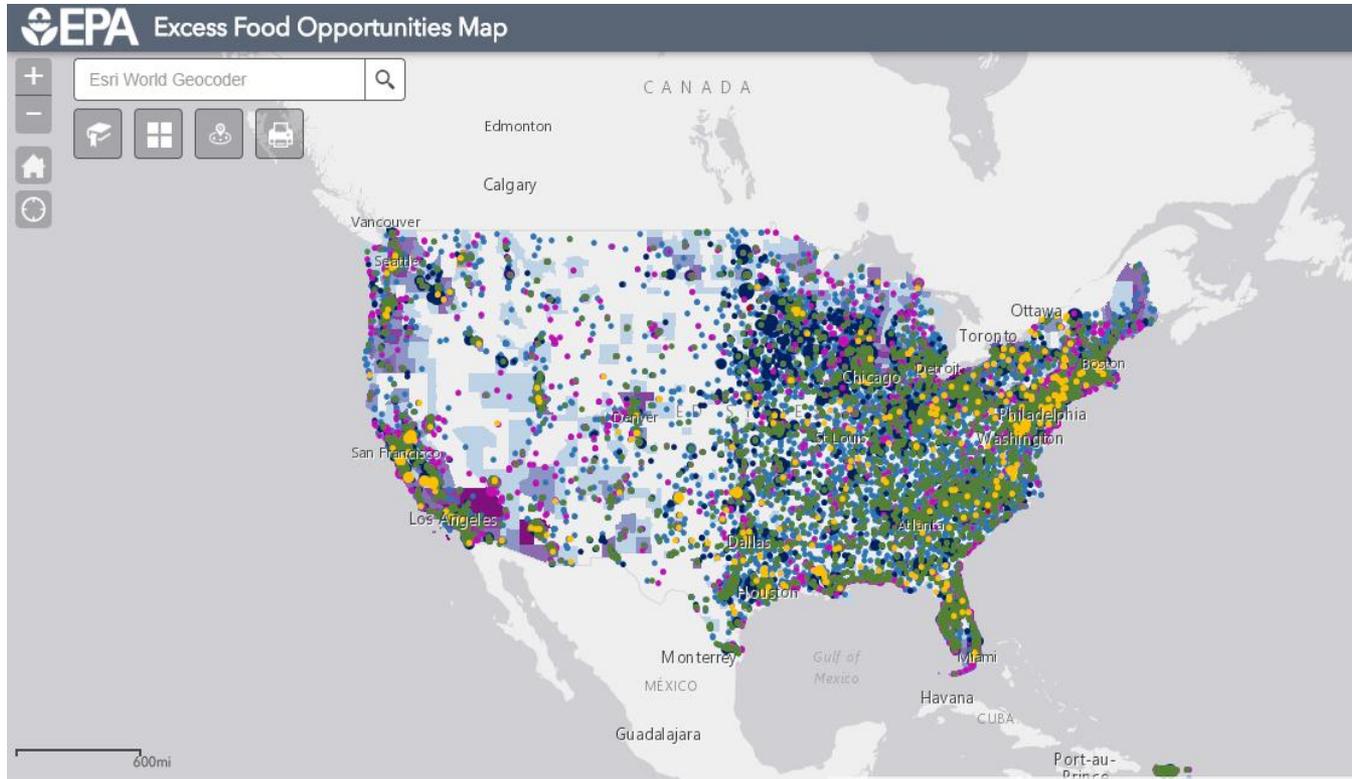


U.S. EPA Excess Food Opportunities Map

Version 1.0



Claudia Fabiano, U.S Environmental Protection Agency
July 12, 2018



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Map Overview

- Identifies **potential excess food generators** and estimated quantities from institutional, commercial & industrial facilities.
- Identifies **potential recipients** of excess food.
- Best used in combination with other publicly available complementary tools and information to identify strategic opportunities for location-specific management of excess food.
- 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 anaerobic digester facility).
 - Private sector and nonprofits working to reduce food being wasted.
 - 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 excess food generation rates at the establishment level.
- Estimated edible fraction of excess food for grocery stores & supermarkets only.
- Plate excess estimates for colleges & universities only.
- Service area for communities with organics collection programs.
- Select contact information.

The map does not provide:

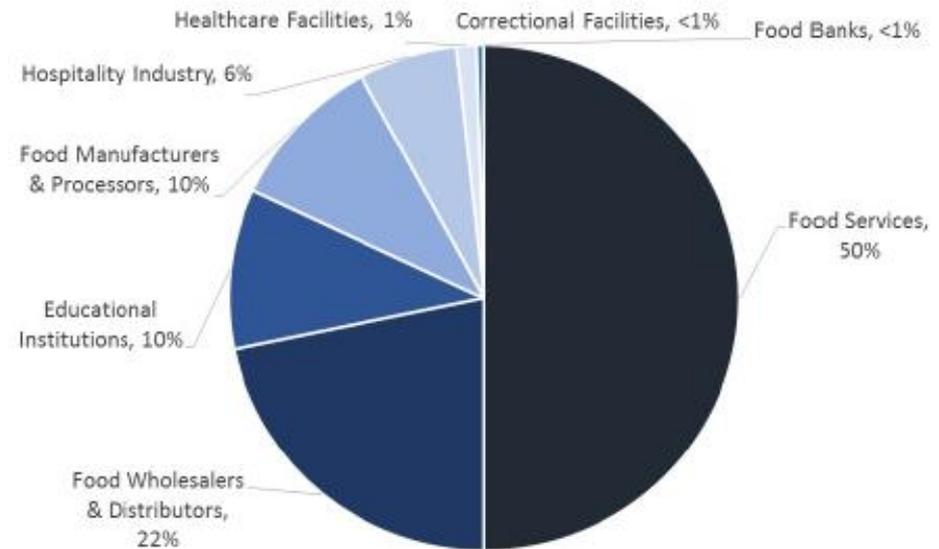
- Exact measurements of excess food.
- Indication of existing generator diversion activity.
- Capacity of potential recipients to accept excess food.
- Estimates of on-farm excess food or that from the food services sector.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Potential Generators of Excess Food

- More than 1.3 million excess-food generating establishments identified.
- More than 500,000 establishments mapped across 73 NAICS* codes.
- Industries grouped as follows:
 - Correctional facilities.
 - Educational institutions.
 - Food banks.
 - Food manufacturers & processors.
 - Food wholesalers & distributors.
 - Healthcare facilities.
 - Hospitality industry.
 - Food services.
(not mapped in this version)



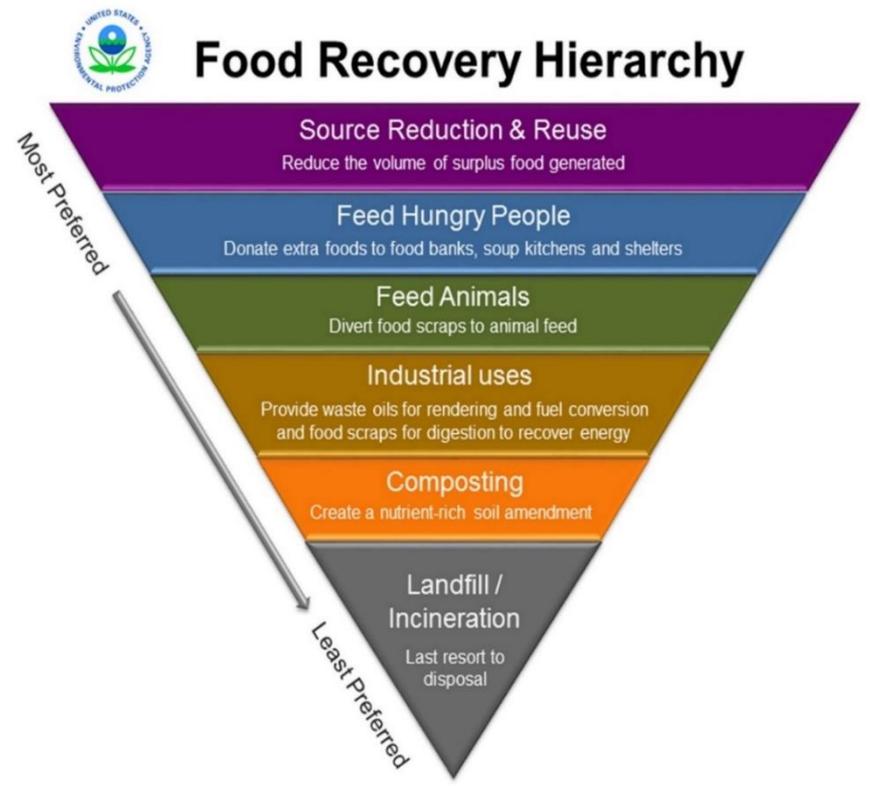
*NAICS= North American Industry Classification System



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Potential Recipients of Excess Food

- Recipients include approximately:
 - 300 food banks.
 - 1,400 anaerobic digestion facilities.
 - 2,500 composting facilities.
- Data sources include Feeding America, American Biogas Council, EPA’s AgSTAR program, state composting registries.

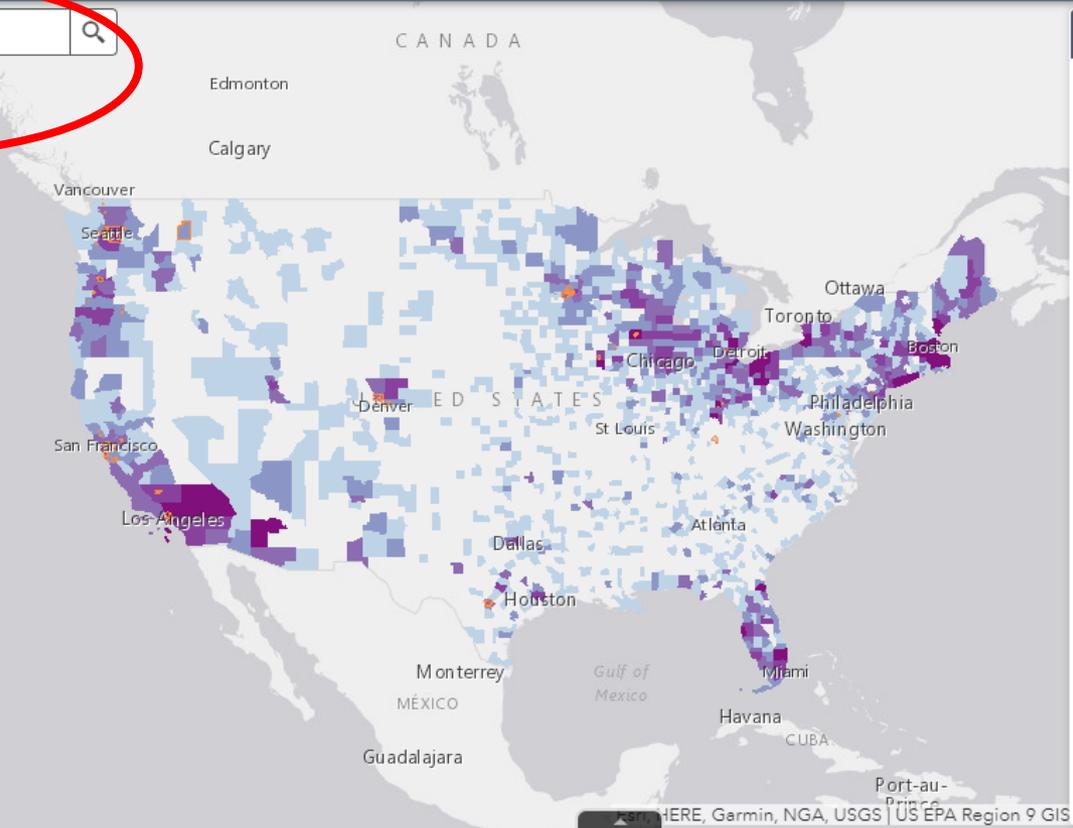


CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

www.epa.gov/smm

Esri World Geocoder

The toolbar contains five icons: a home icon, a full screen icon, a location pin icon, a print icon, and a refresh icon. A red circle highlights the entire toolbar area.



About

The EPA Excess Food Opportunities Map was developed to support nationwide diversion of excess food from landfills. The map identifies and displays facility-specific information about potential generators and recipients of excess food in the commercial, industrial, and institutional sectors, and also provides estimates of excess food for each facility. As a whole, the map helps users understand the geographic dimensions of excess food as a resource, and identify potential recipients, such as food banks and composting and anaerobic digestion facilities, in lieu of landfills. The map can also be used to identify infrastructure gaps and to assess the feasibility of developing new recipient facilities. Instructions for using the map are available [here](#).

The map displays the locations of more than half a million potential excess food generators. These include correctional facilities; educational institutions; food banks; healthcare facilities; hospitality industry; food manufacturing and processing facilities; and, food wholesalers and distributors. The map also displays the locations of more than 4,000 potential recipients of excess food. These recipients include anaerobic digestion facilities; composting facilities; communities with source separated organics programs; and, food banks.

The methods used to develop the map as well as to calculate estimates of excess food are detailed in the [technical methodology](#). Up to 1000 records in the



Esri World Geocoder



Near Me

Search an address or locate on map

Salt Lake City, UT, USA

Show results within 10 Miles

1 100

Correctional Facilities	(15)	>
Educational Institutions	(196)	>
Food Banks	(1)	>
Healthcare Facilities	(39)	>
Hospitality Industry	(140)	>





Esri World Geocoder

Search icons: Home, Layers, User, Print

Near Me

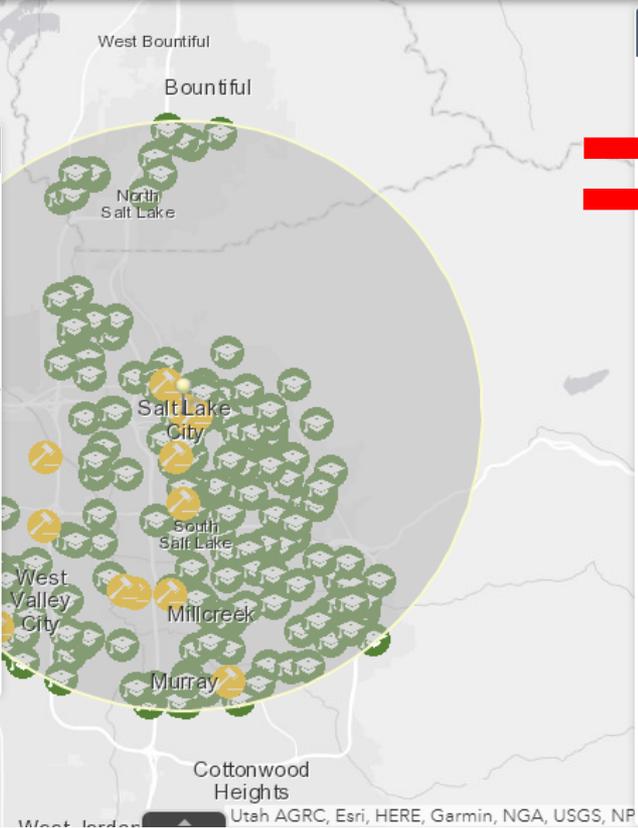
Search an address or locate on map

Salt Lake City, UT, USA

Show results within 10 Miles

1 100

Correctional Facilities	(15)	>
Educational Institutions	(196)	>
Food Banks	(1)	>
Healthcare Facilities	(39)	>
Hospitality Industry	(140)	>



Layer List

Operational Layers

- Correctional Facilities
- Educational Institutions
- Food Banks
- Healthcare Facilities
- Hospitality Industry
- Food Manufacturers and Processors
- Food Wholesalers and Distributors
- Top Generators of Estimated Excess Food (Tons per Year)
- Recipients of Excess Food
- All Food Banks
- All Composting Facilities
- All Anaerobic Digestion Facilities



Esri World Geocoder



Near Me

Search an address or locate on map

Salt Lake City, UT, USA

Show results within 10 Miles

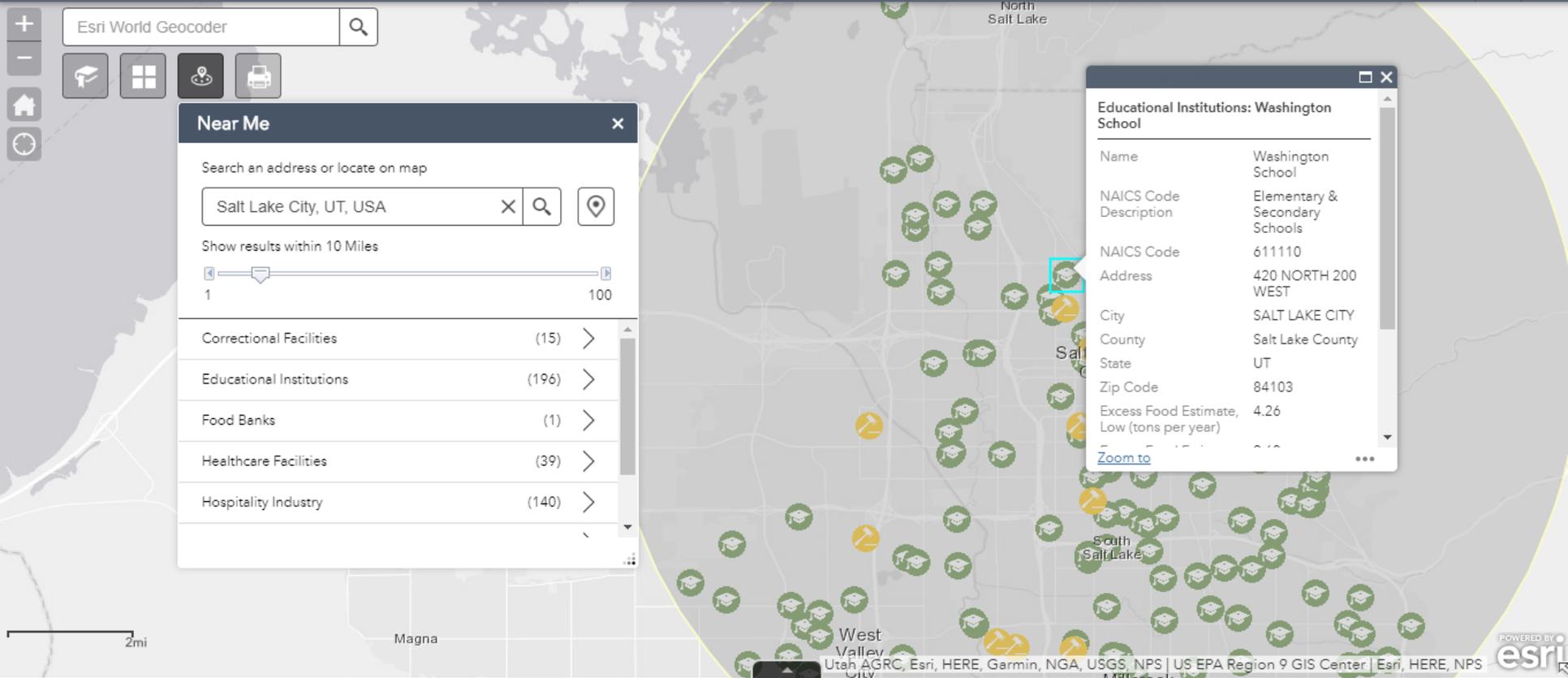
1 100

Correctional Facilities	(15)	>
Educational Institutions	(196)	>
Food Banks	(1)	>
Healthcare Facilities	(39)	>
Hospitality Industry	(140)	>

Educational Institutions: Washington School

Name	Washington School
NAICS Code Description	Elementary & Secondary Schools
NAICS Code	611110
Address	420 NORTH 200 WEST
City	SALT LAKE CITY
County	Salt Lake County
State	UT
Zip Code	84103
Excess Food Estimate, Low (tons per year)	4.26

[Zoom to](#)



Esri World Ge

Near Me

Search an address or locate on map

Salt Lake City, UT, USA

Show results within 10 Miles

1 100

- Correctional Facilities (15)
- Educational Institutions (196)**
- Food Banks (1)
- Healthcare Facilities (39)



Correctional Facilities **Educational Institutions** Food Banks Healthcare Facilities Hospitality Industry Food Manufacturers and Processors Food Wholesalers and Distributors

Options **Filter by Map Extent** Zoom to Clear Selection Refresh

Name	NAICS Code Description	NAICS Code	Address	City	County	State	Zip Code	Excess Food Estimate- Low (tons per year)	Excess Food Estimate- High (tons per year)	Plate Excess Estimate- Low (tons per year)	Plate Excess Estimate- High (tons per year)	Unique Identifier
Backman School	Elementary & Secondary Schools	611110	601 NORTH 1500 WEST	SALT LAKE CITY	Salt Lake County	UT	84116	6.02	13.61			EDU0100077
Bryant Middle	Elementary & Secondary Schools	611110	40 SOUTH 800 EAST	SALT LAKE CITY	Salt Lake County	UT	84102	4.93	7.20			EDU0100080

30 features 0 selected

Esri World Geocoder

2mi

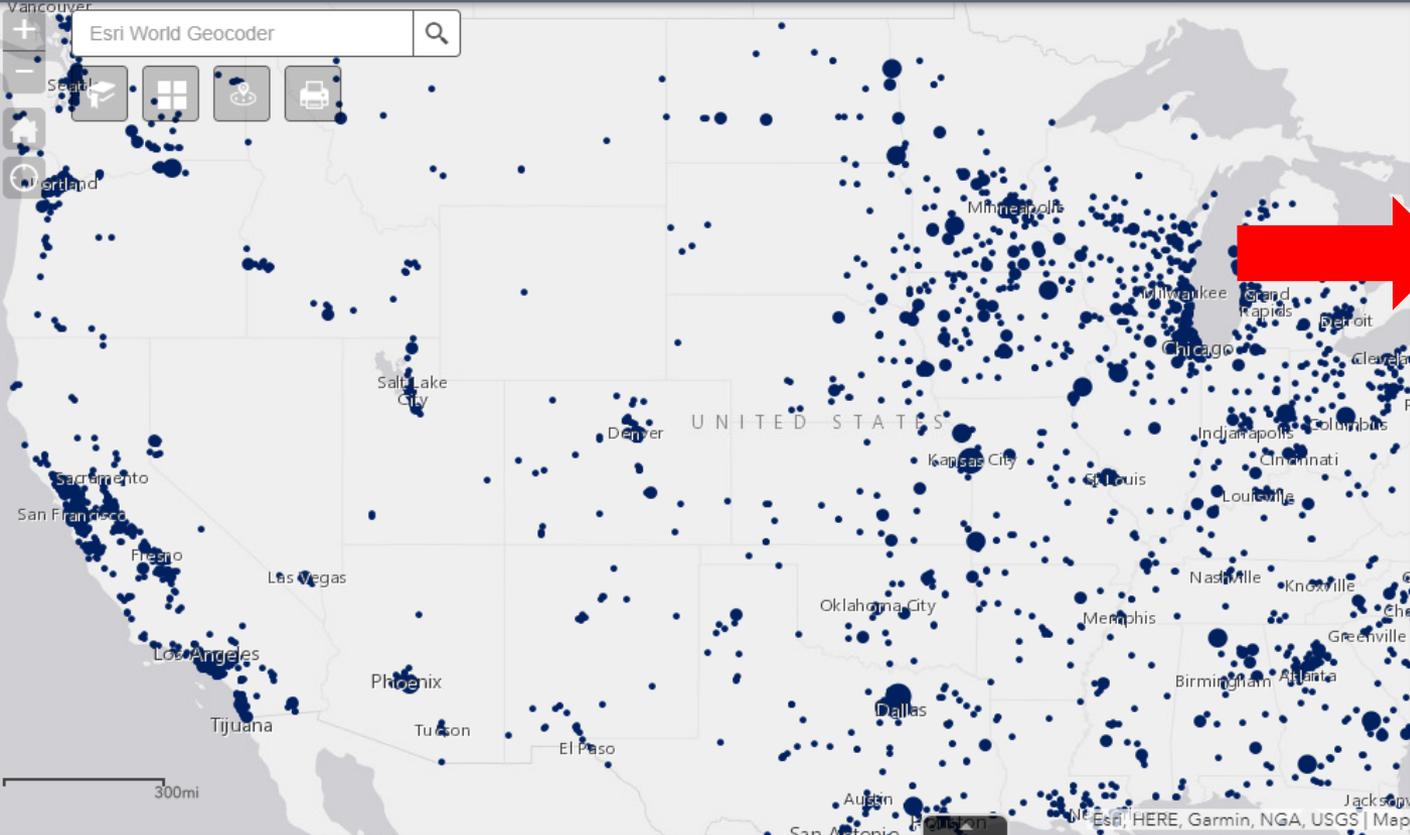


- Correctional Facilities
- Educational Institutions
- Food Banks
- Healthcare Facilities
- Hospitality Industry
- Food Manufacturers and Processors
- Food Wholesalers and Distributors

Options														
Filter by Map Extent														
<input type="checkbox"/> Show Selected Records <input type="checkbox"/> Show Related Records Filter <input checked="" type="checkbox"/> Show/Hide Columns <input type="checkbox"/> Export All to CSV														
NAICS Code	Address	City	County	State	Zip Code	Excess Food Estimate- Low (tons per year)	Excess Food Estimate- High (tons per year)	Plate Excess Estimate- Low (tons per year)	Plate Excess Estimate- High (tons per year)	Unique Identifier				
611110	308 MILLSTONE RD	CLARKSBURG	Monmouth County	NJ	08510	2.96	6.69			EDU065678				
611110	SCHOOLHOUSE RD	MILLSTONE TOWNSHIP	Monmouth County	NJ	08510	4.38	9.90			EDU065679				
611310	243 S Prospect Street	Ravenna	Portage County	OH	44266					EDU06568				
611110	5 DAWSON COURT	MILLSTONE TOWNSHIP	Monmouth County	NJ	08535	1.88	2.74			EDU065680				
611110	21 WEST CHURCH ST	MILLTOWN	Middlesex County	NJ	08850	2.95	4.31			EDU065681				

136534 features 0 selected

EPA Excess Food Opportunities Map

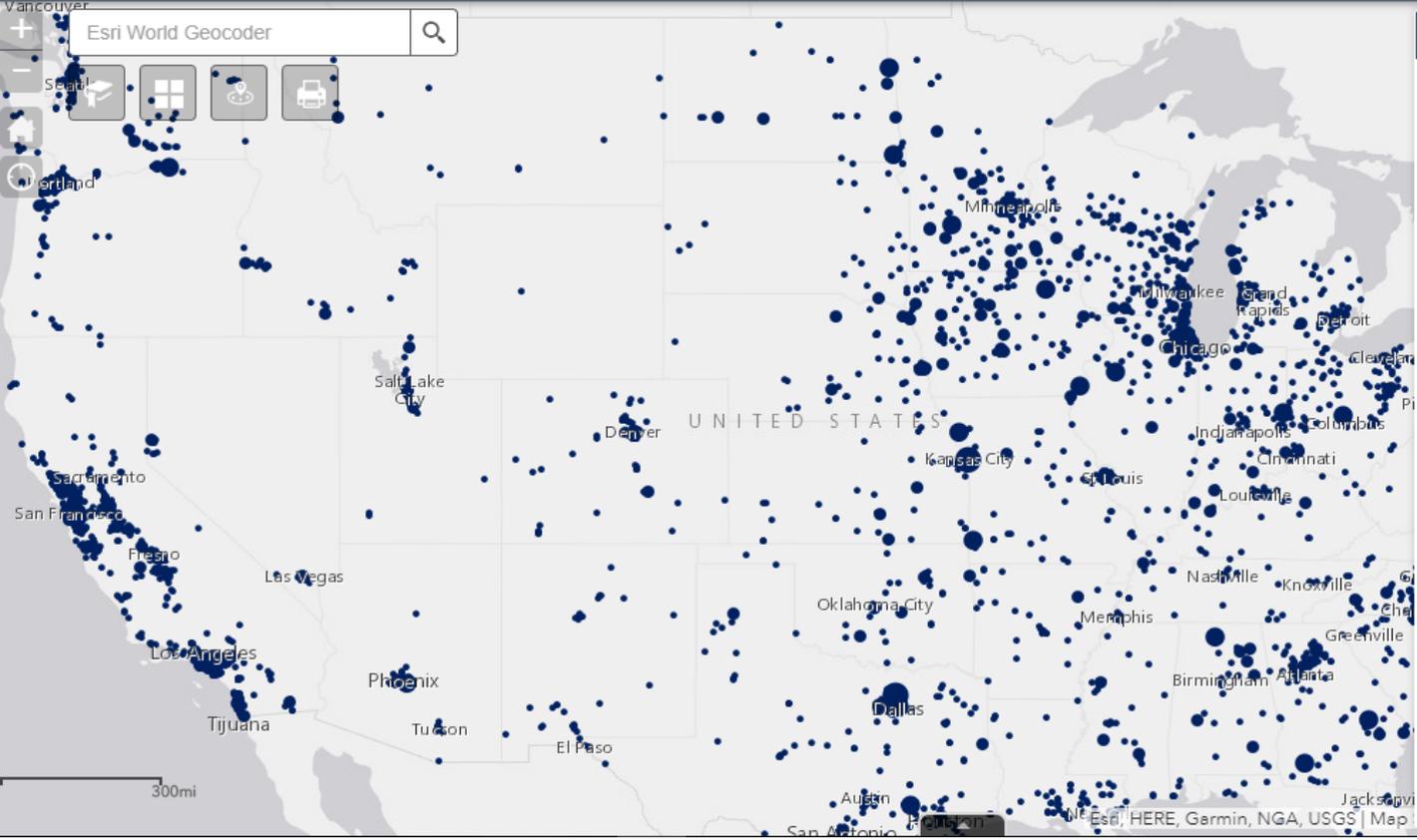


Layer List

- Hospitality Industry ...
- Food Manufacturers and Processors ...
- Food Wholesalers and Distributors ...
- Top Generators of Estimated Excess Food (Tons per Year) ...
- Correctional Facilities ...
- Educational Institutions ...
- Food Banks ...
- Healthcare Facilities ...
- Hospitality Industry ...
- Food Manufacturers and Processors ...
- Food Wholesalers and Distributors ...
- Recipients of Excess Food ...
- All Food Banks ...
- All Composting Facilities ...



EPA Excess Food Opportunities Map

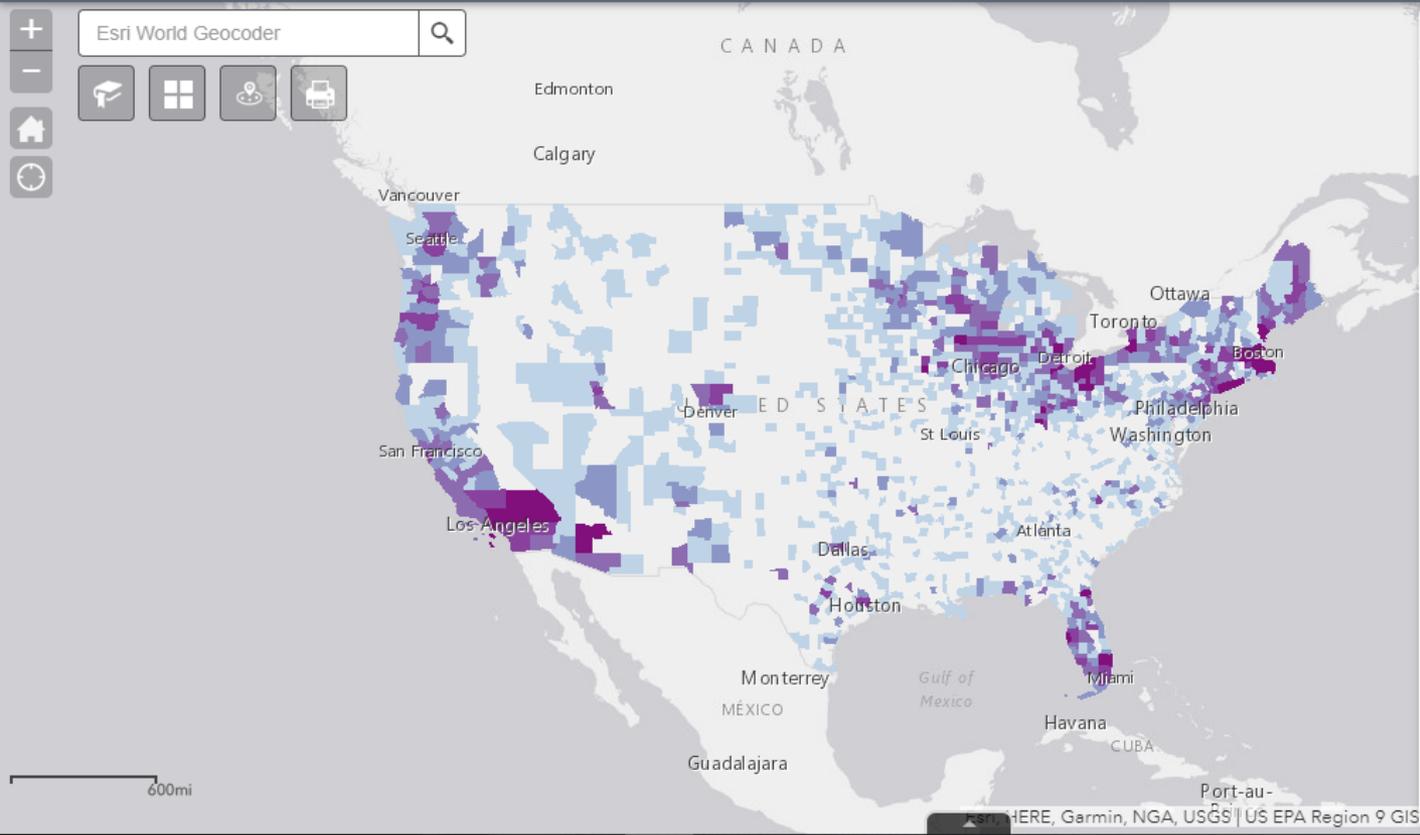


Legend

Top Generators of Estimated Excess Food (Tons per Year)

Food Manufacturers and Processors

- <10 - 1,000
- 1,001 - 5,000
- 5,001 - 50,000
- 50,001 +

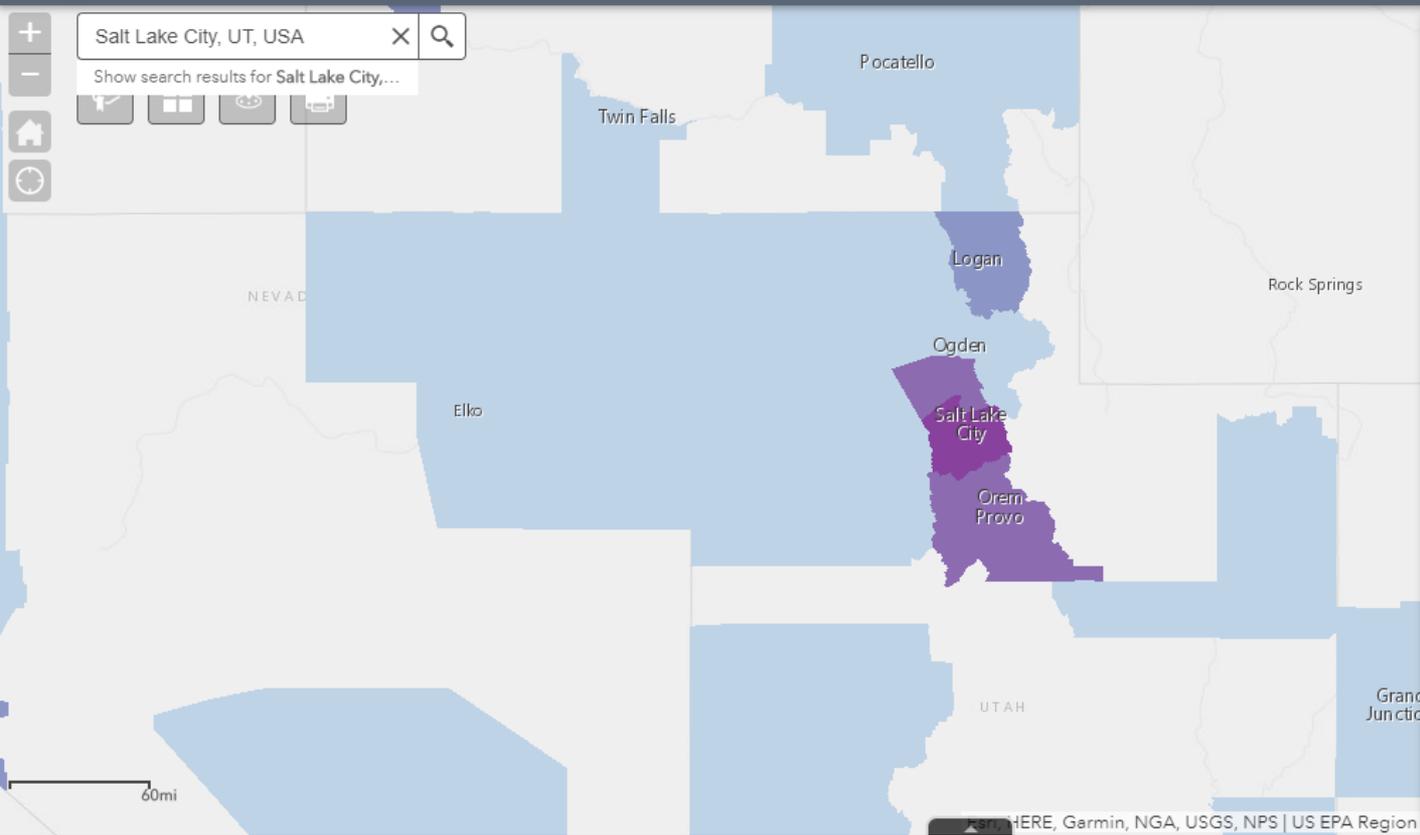


Layer List

- Food Wholesalers and Distributors ...
- Top Generators of Estimated Excess Food (Tons per Year) ...
- Recipients of Excess Food ...
 - Communities with Source Separated Organics Programs ...
 - Recipients by County ...
 - All Recipients of Excess Food ...
 - Composting Facilities ...
 - Anaerobic Digestion Facilities ...
 - Food Banks ...
 - Recipients by Zip Code ...
- All Food Banks ...
- All Composting Facilities ...
- All Anaerobic Digestion Facilities ...

Search bar: Salt Lake City, UT, USA
Show search results for Salt Lake City,...

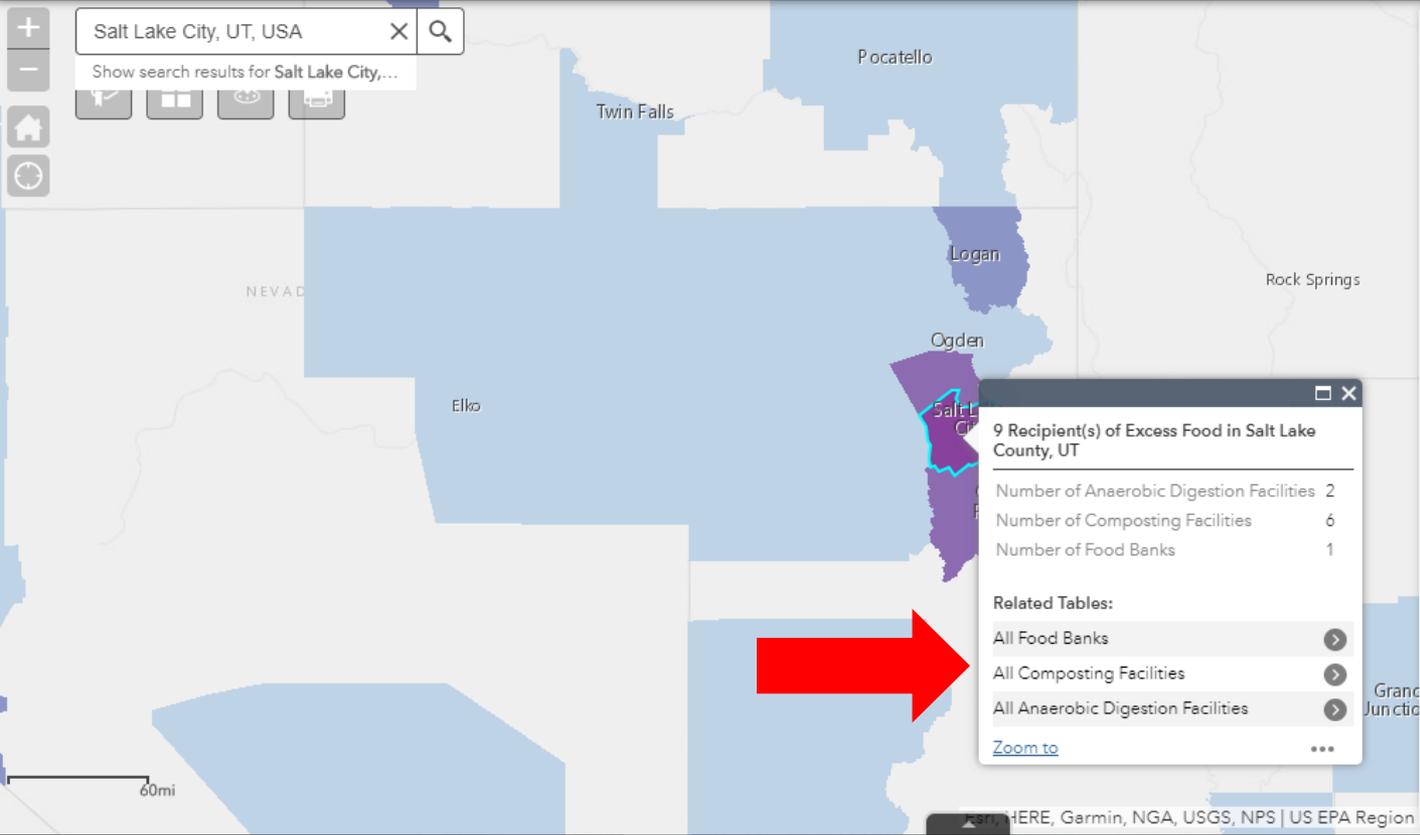
Map navigation icons: Home, Refresh, Full Screen, Print, Share



Layer List

- Food Wholesalers and Distributors
- Top Generators of Estimated Excess Food (Tons per Year)
- Recipients of Excess Food
 - Communities with Source Separated Organics Programs
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 - Anaerobic Digestion Facilities
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- Recipients by Zip Code
- All Food Banks
- All Composting Facilities
- All Anaerobic Digestion Facilities

Search bar: Salt Lake City, UT, USA
Show search results for Salt Lake City,...



9 Recipient(s) of Excess Food in Salt Lake County, UT

Number of Anaerobic Digestion Facilities	2
Number of Composting Facilities	6
Number of Food Banks	1

Related Tables:

- All Food Banks
- All Composting Facilities
- All Anaerobic Digestion Facilities

[Zoom to](#)

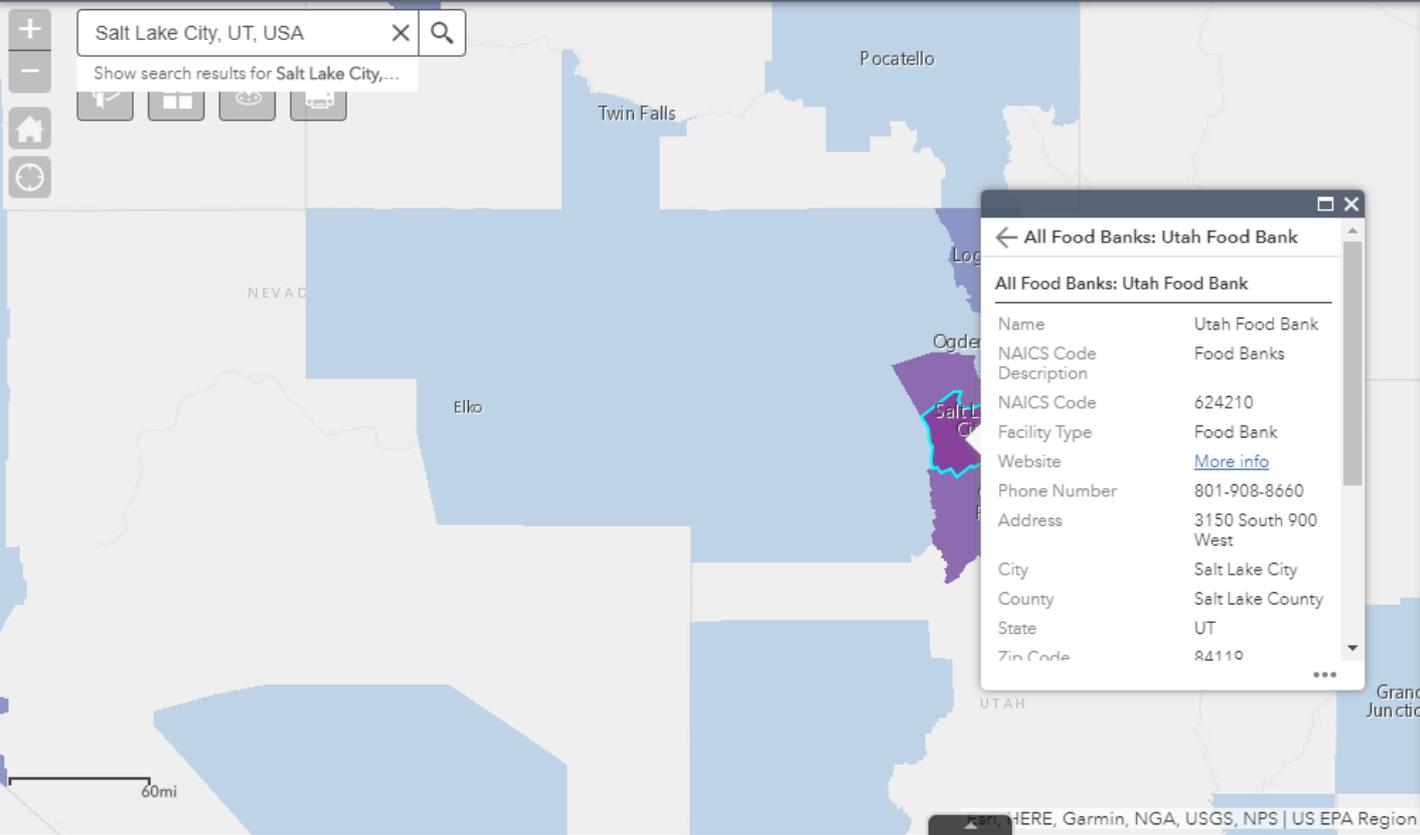
Layer List

- Food Wholesalers and Distributors
- Top Generators of Estimated Excess Food (Tons per Year)
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 - Food Banks
 - Recipients by Zip Code
- All Food Banks
- All Composting Facilities
- All Anaerobic Digestion Facilities

Search bar: Salt Lake City, UT, USA

Show search results for Salt Lake City,...

Map controls: Home, Full Screen, Refresh, Print

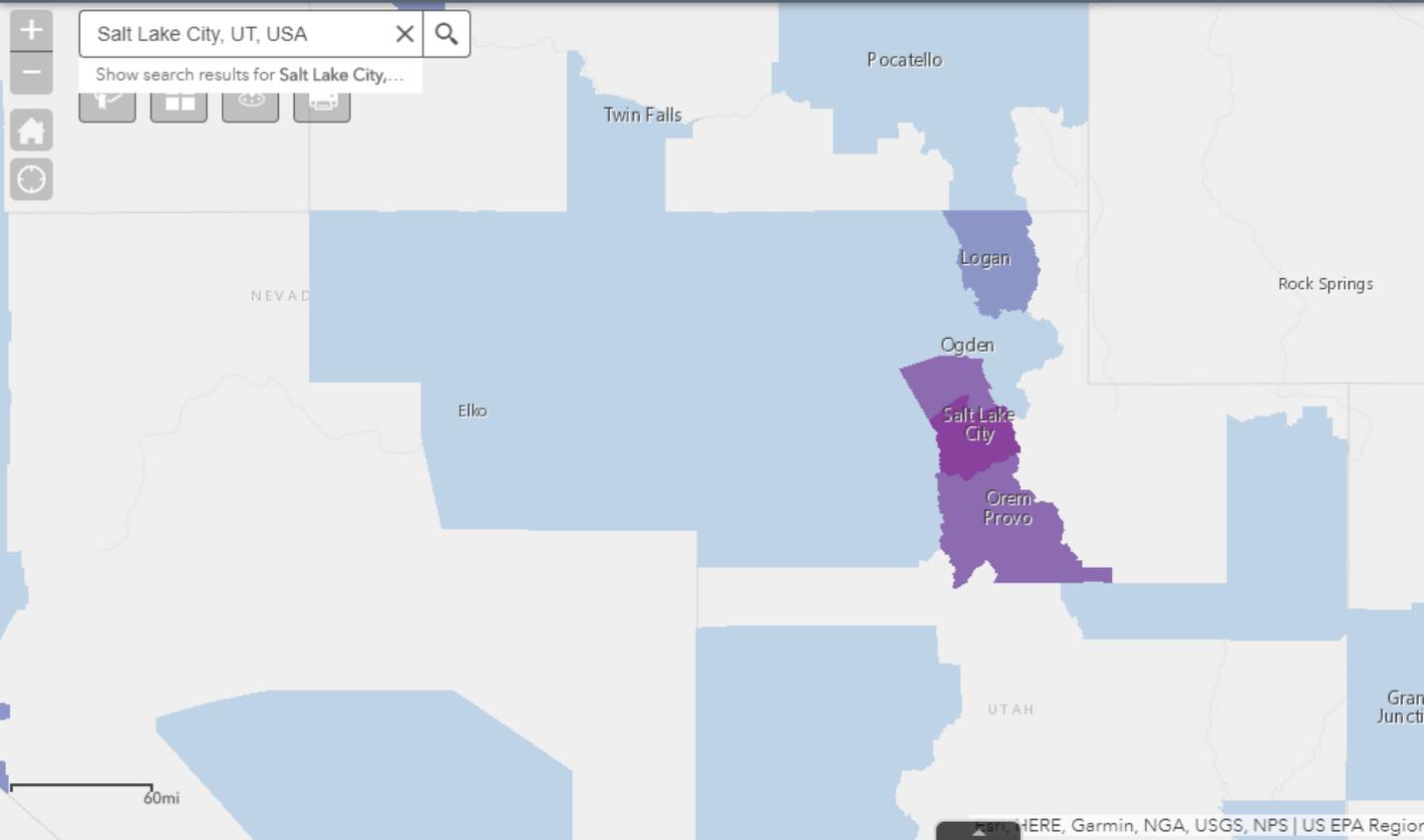


All Food Banks: Utah Food Bank

Name	Utah Food Bank
NAICS Code	Food Banks
Description	
NAICS Code	624210
Facility Type	Food Bank
Website	More info
Phone Number	801-908-8660
Address	3150 South 900 West
City	Salt Lake City
County	Salt Lake County
State	UT
Zip Code	84110

Layer List

- Food Wholesalers and Distributors
- Top Generators of Estimated Excess Food (Tons per Year)
- Recipients of Excess Food
 - Communities with Source Separated Organics Programs
 - Recipients by County
 - All Recipients of Excess Food
 - Composting Facilities
 - Anaerobic Digestion Facilities
 - Food Banks
 - Recipients by Zip Code
- All Food Banks
- All Composting Facilities
- All Anaerobic Digestion Facilities



Layer List

- Food Wholesalers and Distributors ...
- Top Generators of Estimated Excess Food (Tons per Year) ...
- Recipients of Excess Food ...
 - Communities with Source Separated Organics Programs ...
 - Recipients by County ...
 - All Recipients of Excess Food ...
 - Composting Facilities
 - Anaerobic Digestion Facilities
 - Food Banks
 - Recipients by Zip Code
- All Food Banks ...
- All Composting ...
- All Anaerobic Dig ...

A red arrow points to the "All Food Banks" layer, which has a context menu open. The menu contains the following items:

- Open Attribute Table
- Description

Map search interface with search bar containing "Salt Lake City, UT, USA" and a 60mi scale bar. The map shows locations like Twin Falls and Pocatello.

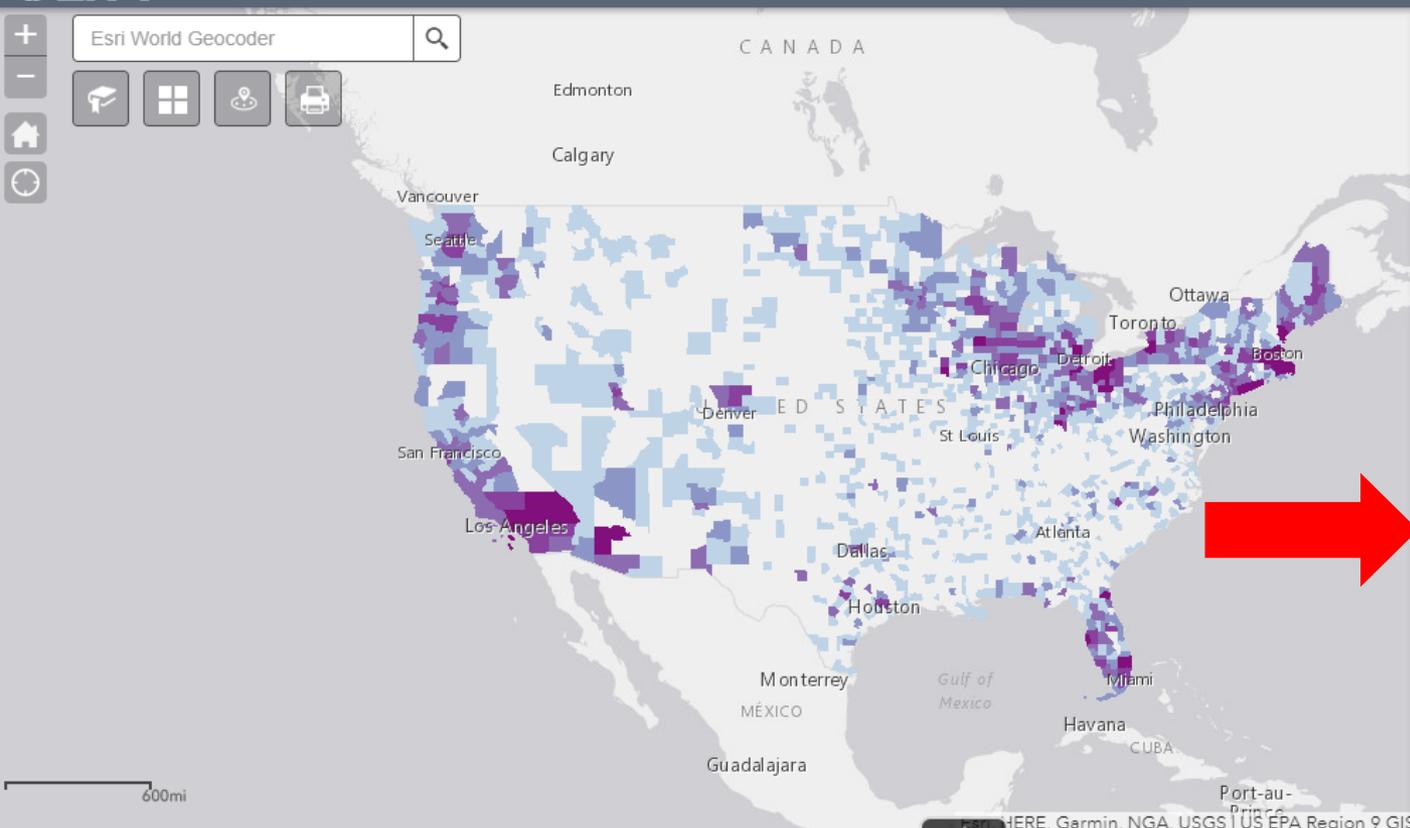
Layer List panel with the following items:

- Food Wholesalers and Distributors
- Top Generators of Estimated Excess Food (Tons per Year)
- Recipients of Excess Food

Facility type filter tabs: Correctional Facilities, Educational Institutions, Food Banks, Healthcare Facilities, Hospitality Industry, Food Manufacturers and Processors, Food Wholesalers and Distributors, All Food Banks

Options: Filter by Map Extent, Zoom to, Clear Selection, Refresh

Name	NAICS Code Description	NAICS Code	Facility Type	Website	Phone Number	Address	City	County	State	Zip Code	Received Food (tons per year)	Unique Identifier	Exc (tor)
Food Bank of Alaska, Inc.	Food Banks	624210	Food Bank	http://www.foodb	907-272-3663	2121 Spar Avenue	Anchorage	Anchorage Municipality	AK	99501	4,398.70	FB01	327
Northwest Arkansas Food Bank	Food Banks	624210	Food Bank	http://www.NWA	479-872-8774	1378 June Self Drive	Bethel Heights	Benton County	AR	72764		FB010	
Channel One Regional Food Bank	Food Banks	624210	Food Bank	http://www.helpir	507-424-1700	131 35th Street, SE	Rochester	Olmsted County	MN	55904		FB0100	
SECOND HARVEST NORTHERN LAKES FOOD BANK	Food Banks	624210	Food Bank	http://www.north	218-727-5653	4503 Airpark Boulevard	DULUTH	St. Louis County	MN	55811	2,530.42	FB0101	271
Harvesters Community Food Network	Food Banks	624210	Food Bank	http://www.harve	816-929-3000	3801 Topping Avenue	Kansas City	Jackson County	MO	64130	22,879.09	FB0102	396
ST. LOUIS AREA	Food Banks	624210	Food Bank	http://www.stlfo	314-282-6262	70 Corporate	BRIDGETON	St. Louis County	MO	63044	17,221.74	FB0103	271



About

The map displays the locations of more than half a million potential excess food generators. These include correctional facilities; educational institutions; food banks; healthcare facilities; hospitality industry; food manufacturing and processing facilities; and, food wholesalers and distributors. The map also displays the locations of more than 4,000 potential recipients of excess food. These recipients include anaerobic digestion facilities; composting facilities; communities with source separated organics programs; and, food banks.

The methods used to develop the map as well as to calculate estimates of excess food are detailed in the [technical methodology](#). Up to 1000 records in the attribute table may be exported to csv directly from the web map. Complete tabular and GIS datasets are available for download from the [EPA Environmental Dataset Gateway](#).

Security classification: Public. Access constraints: None. Use constraints: This data is shared by the US EPA as an interactive web map application. Data should be used only for Food Recovery purposes promoted by the EPA's Sustainable Materials Management Program (SMM). Please check sources, scale, accuracy, currency and other available information. Please confirm that you are using the most recent copy of both data and metadata. Acknowledgement of the EPA would be appreciated.

To report an issue with this application, contact us at SMMFood@epa.gov.

https://edg.epa.gov/data/PUBLIC/R9/ExcessFoodPublic_USTer_2015_R9.gdb.zip

Examples of Potential Generators

NAICS Code	North American Industry Classification System (NAICS) Code Description
311230	Breakfast Cereal Manufacturing
445110	Supermarkets and other grocery (except convenience) stores
611310	Colleges, universities, and professional schools
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 Excess Food Generation Rate Calculation

1. Identify industry-specific methodology/generation factor.
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 Excess Food $\frac{\text{tons}}{\text{year}} =$

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

The diagram shows a blue bracket on the left grouping the methodology and data sources. A blue arrow points from this bracket to the calculation formula. The formula itself is a multiplication of three terms: Facility's Annual Revenue (\$), a conversion factor (0.053 lb / Annual Revenue (\$)), and another conversion factor (tons / 2,000 lb). The result is labeled as Food Manufacturers and Processors Excess Food in tons per year.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Limitations

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



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 excess food.
- Support decision-making through identification of:
 - potential sources of food for rescue and reuse.
 - feedstocks for compost, anaerobic digestion, or other excess food processors.
 - potential infrastructure gaps for managing excess food.
 - alternatives to sending excess food to landfill.
- Download data, and adapt/adopt methodology, if desired.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Resources

- Map & resources
 - Technical Methodology.
 - FAQs.
 - User Guide.
 - Data available for download.



User Guide for the Excess Food Opportunities Map

The U.S. EPA Excess Food Opportunities Map supports nationwide diversion of excess food from landfills. The interactive map displays the locations of more than 500,000 potential industrial, commercial and institutional excess food generators and more than 4,000 potential recipients. [Learn more about this map and its uses.](#)

Below are tips about how to use the map and generate commonly requested views.

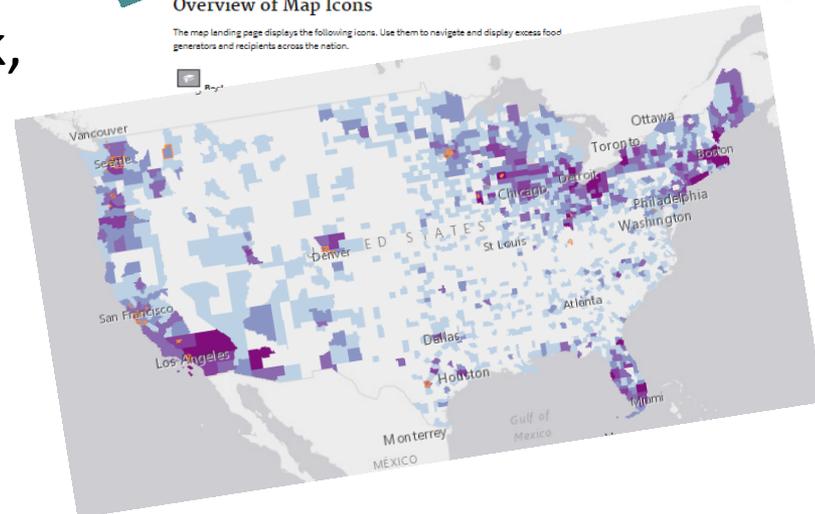
- [Overview of Map Icons](#)
- [Creating Map Views](#)
- [Viewing and Filtering Establishment-Level Data](#)
- [Downloading Data](#)

Resources

- [List of types of excess food generators and recipients found in this map](#)
- [Answers to frequent questions](#)
- Direct any questions to SMMFood@epa.gov. Please include "Excess Food Opportunities Map" in the subject line.

Overview of Map Icons

The map landing page displays the following icons. Use them to navigate and display excess food generators and recipients across the nation.



Frequent Questions about the U.S. EPA Excess Food Opportunities Map

The U.S. EPA Excess Food Opportunities Map supports nationwide diversion of excess food from landfills through the identification and display of establishment-specific information about potential generators and recipients of excess food. Through analysis of the data presented in the map, users may be able to identify infrastructure gaps, assess the feasibility of developing new recipient facilities and identify alternatives to landfill disposal. If your question is not answered below, please contact SMMFood@epa.gov.

On this page:

- [Map Background](#)
- [Technical specifications](#)

Map Background

1. Who is the intended audience for the map?
2. How does U.S. EPA define excess food for the map?
3. Does the map display...

...state of total excess food in the United States?

...of recipient capacity for excess food?

...maps detailing excess food generators and recipients (e.g., Massachusetts, South Carolina, Vermont)?

- For questions and feedback, email:

SMMFood@epa.gov