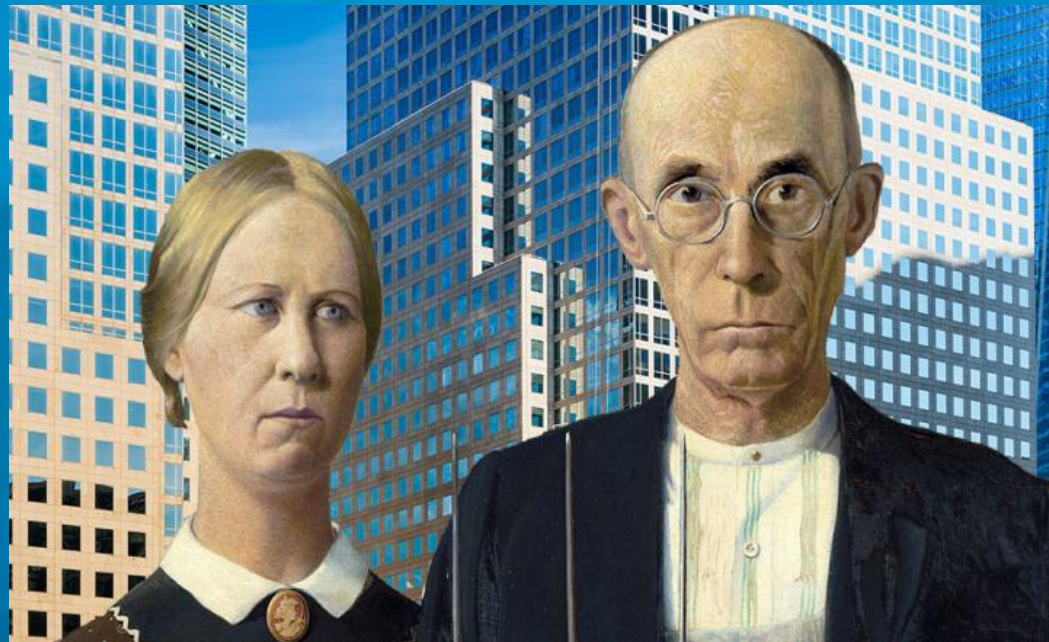


FOOD WASTE PREVENTION:

YOU ARE WHAT YOU EAT ... OR DON'T EAT



Woody Raine
Austin Resource Recovery



Your friend: “I don’t eat leftovers.”

What do you say?



1

Will work
for food



3



2



4





WASTED FOOD:

U.S. AWARENESS, ATTITUDES, AND BEHAVIORS

Johns Hopkins University survey (6/10/15)

Discarding food *doesn't bother them* because:

- They compost it (41%)
- It breaks down in a landfill (31%)

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127881>

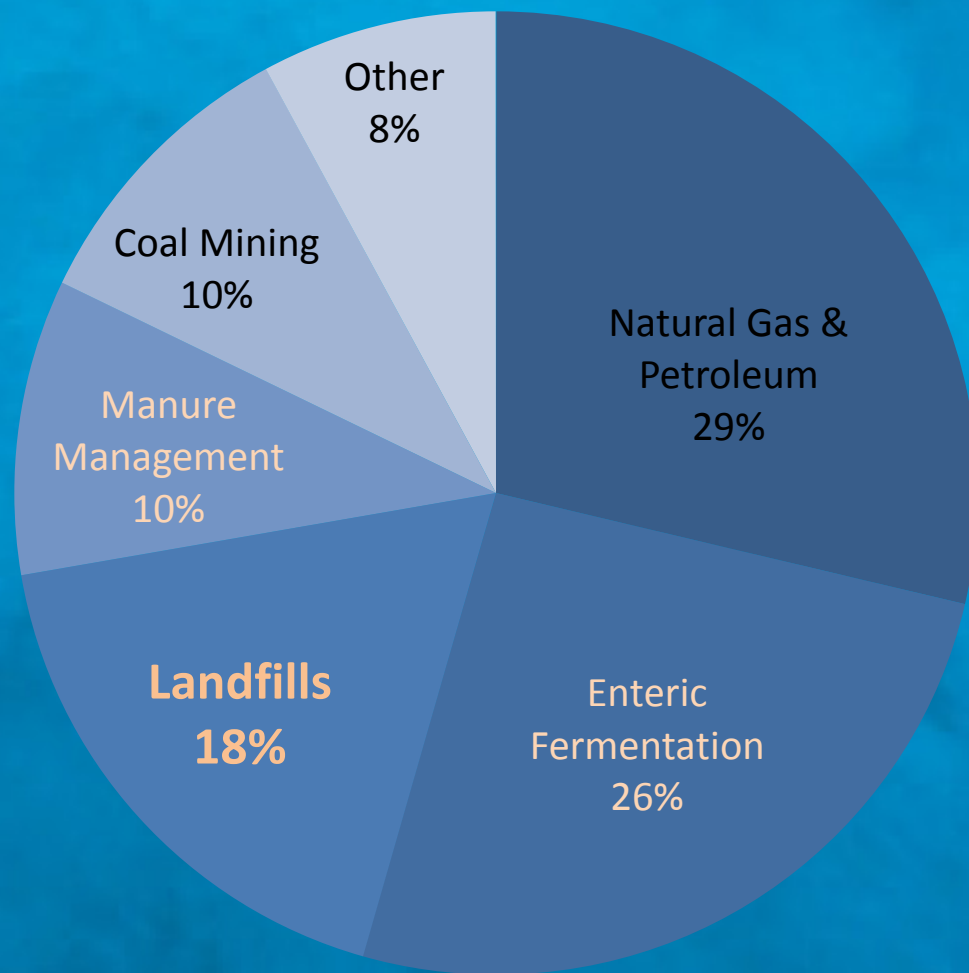


LANDFILL GAS WELLS



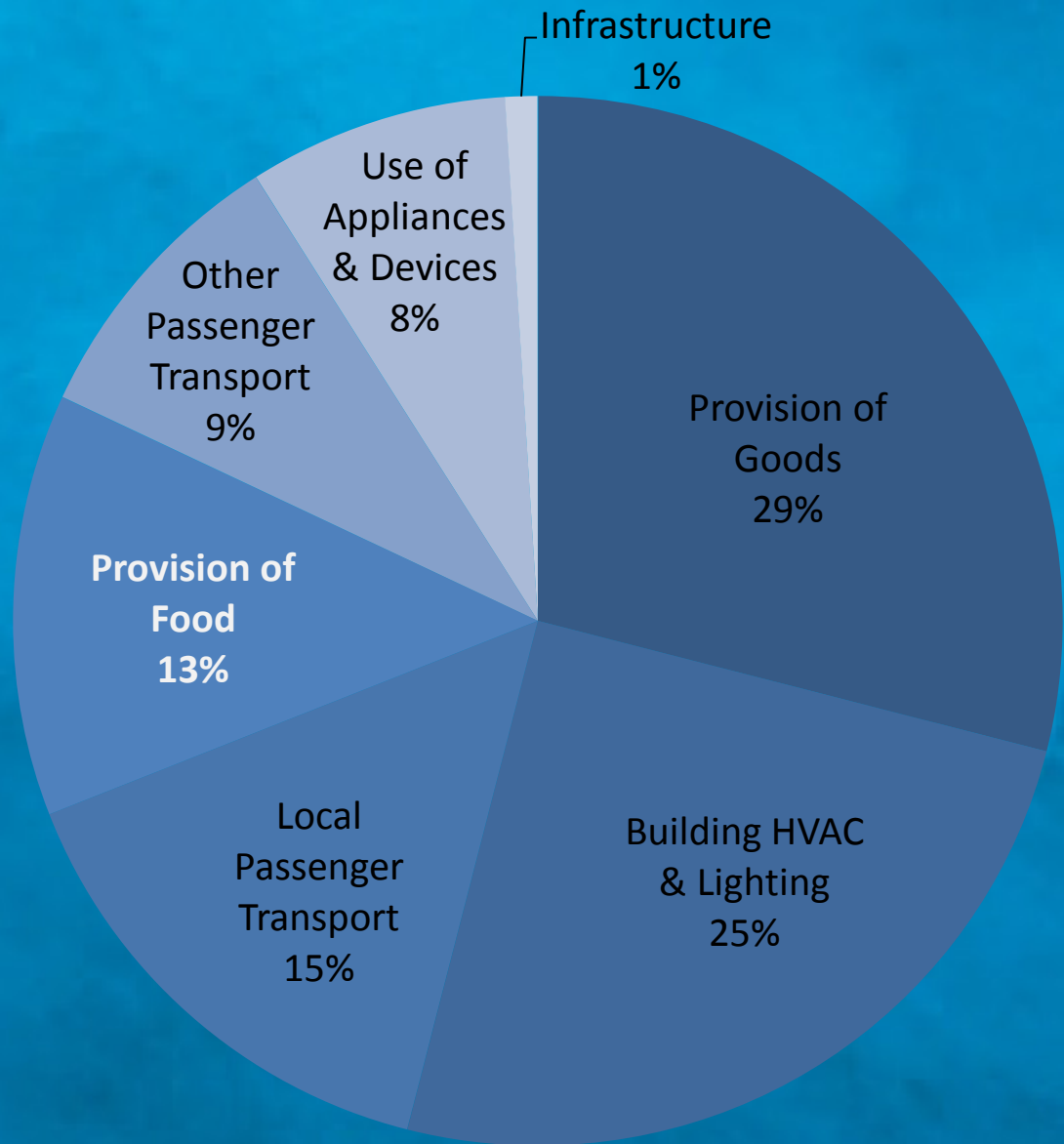
Landfill gas wellhead

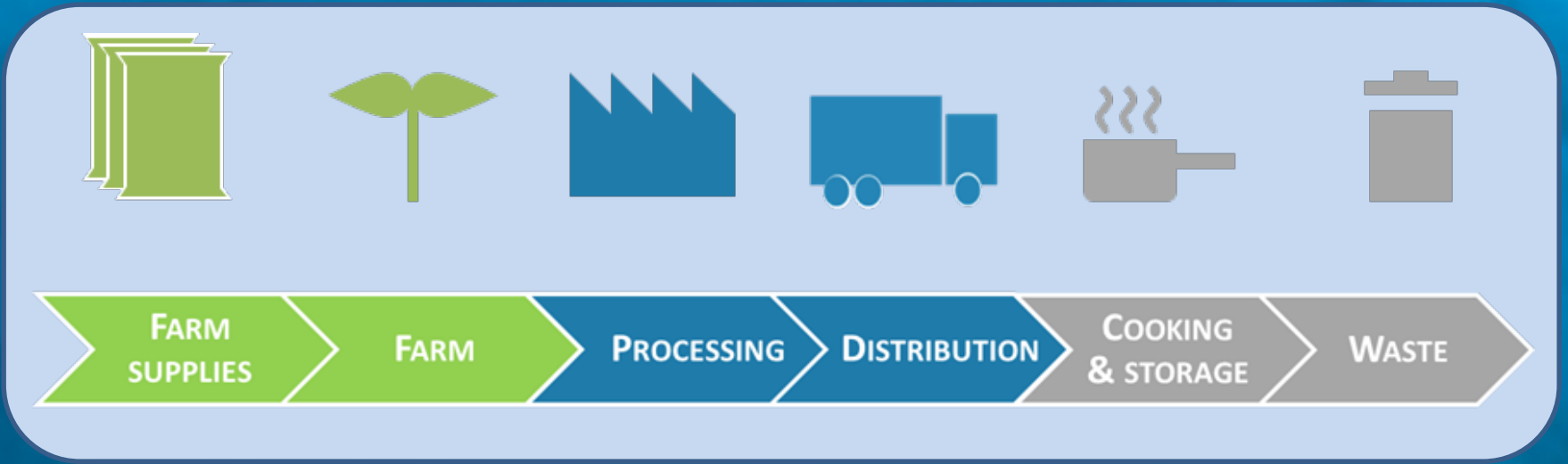
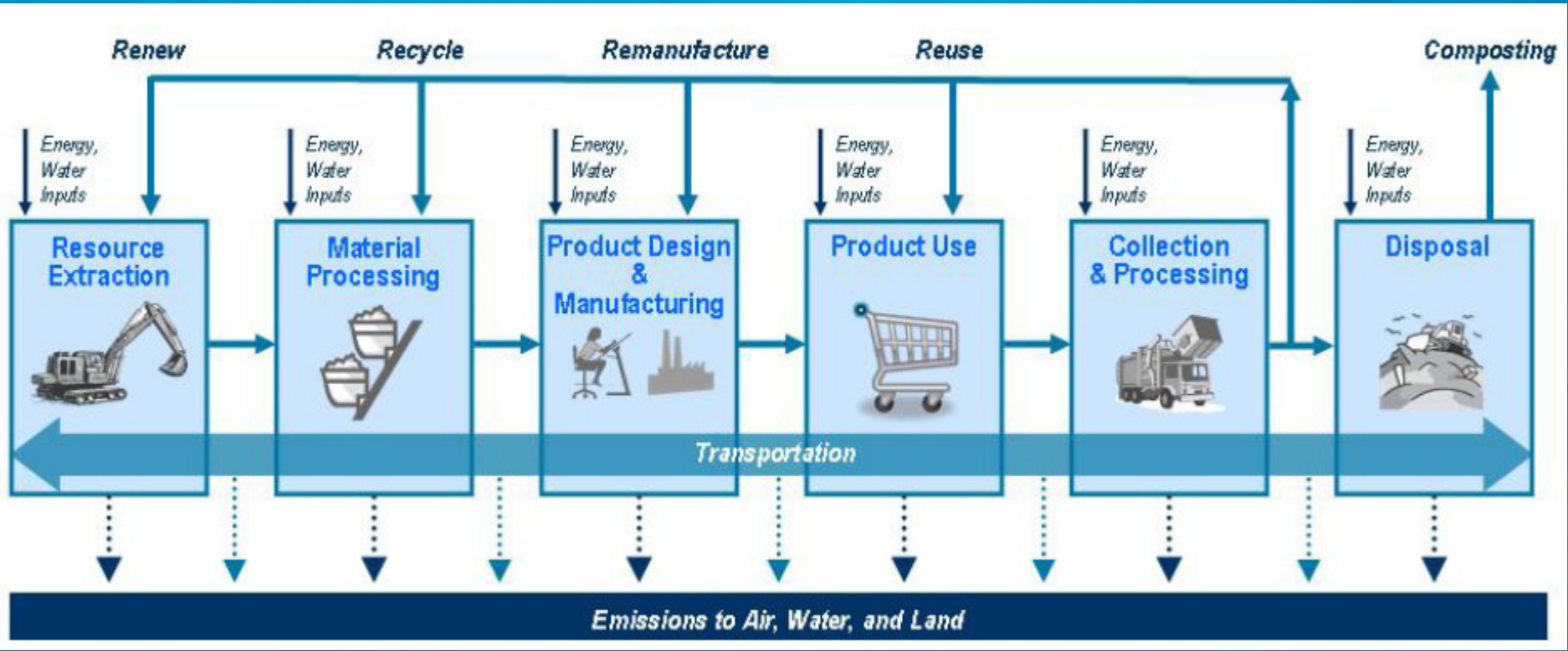
U.S. METHANE EMISSIONS, BY SOURCE



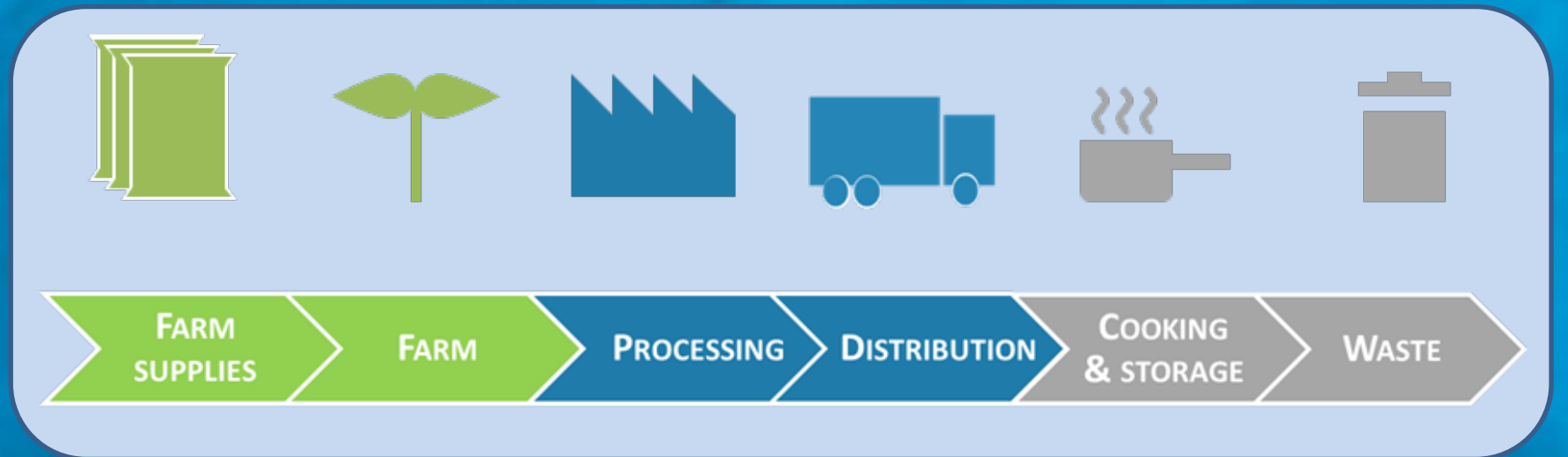
from the *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013*

**SYSTEMS-
BASED
VIEW OF US
GHGs
(2006)**





GHG EMISSIONS PER TON OF FOOD (MTCO₂E) COMPOSTED



0.15

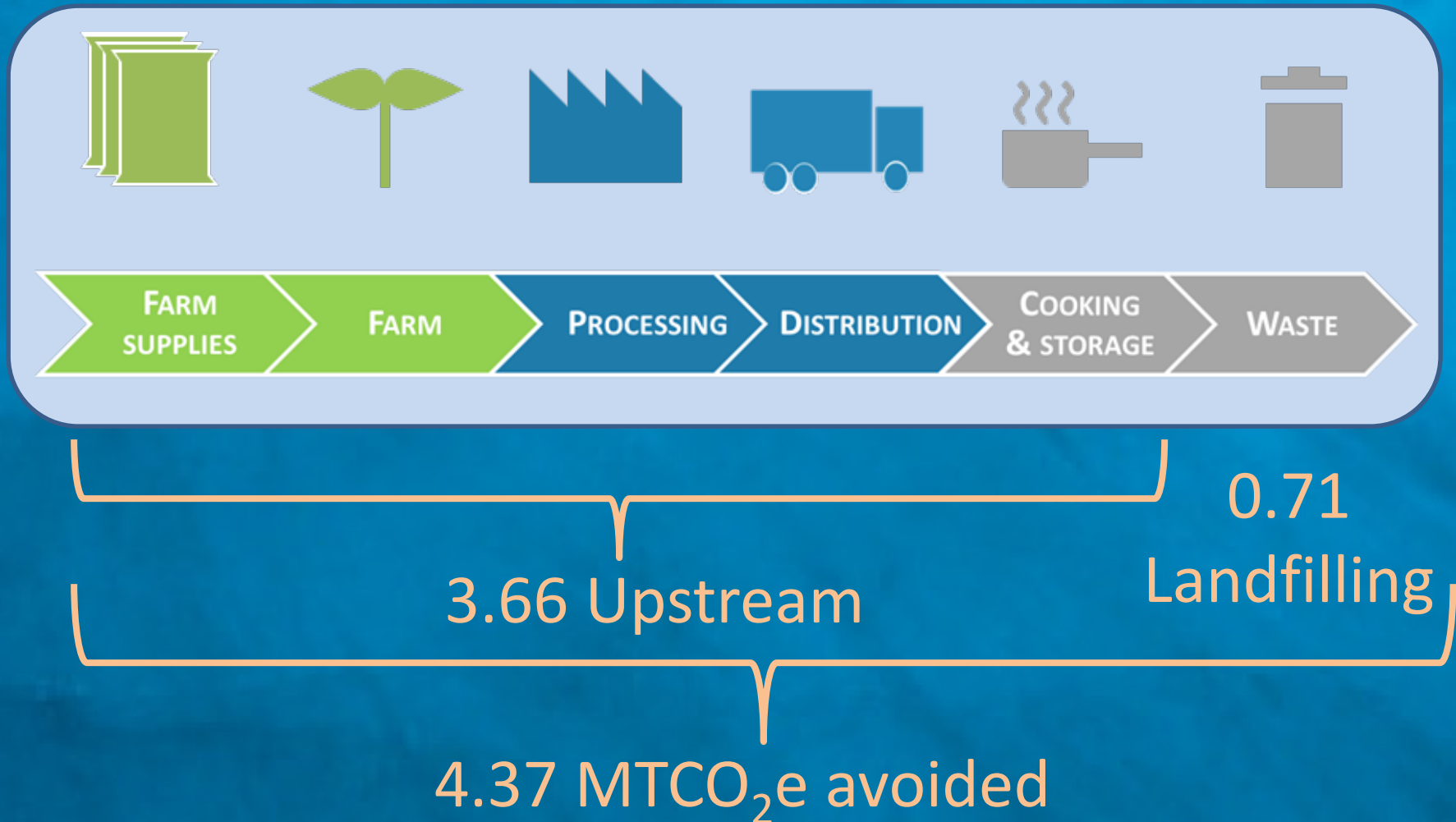
Composting

0.71

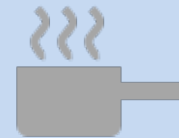
Landfilling

0.86 MTCO₂e avoided

GHG EMISSIONS PER TON OF FOOD (MTCO₂E) SOURCE REDUCED



GHG EMISSIONS PER TON OF FOOD (MTCO₂E)



Avoided Emissions

Not Landfilling	0.71
Composting	0.15
Total	0.86

Avoided Emissions

Not Landfilling	0.71
Source Reduction	3.66
Total	4.37



VS.



VS.



Farm
Supplies



Farm



Processing
& Storage



Distribution



Total
kg CO₂e/250g

Lettuce

0.16

0.58

0.42

0.05

1.2

Strawberries

0.11

0.43

0.21

0.06

0.8

Mushrooms

0.41

0.03

0.04

0.03



0.5

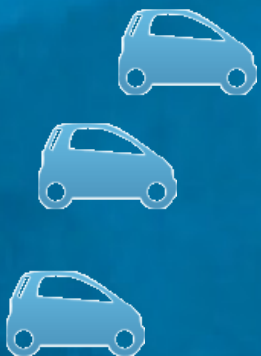
GHG EMISSIONS PER TON OF FOOD (MTCO₂E)

One Ton of ...	Upstream (Emissions)
Food	3.66
Beef	30.05
Poultry	2.47
Bread	0.67
Fruits, Veggies	0.44

GHG EMISSIONS PER POUND OF FOOD

FROM DRIVING PASSENGER VEHICLE ___ MILES

	One Pound of ...	Upstream (Miles)
	Food	4.4
	Beef	 35.8
	Poultry	2.9
	Bread	0.8
	Fruits, Veggies	0.5



DO THE RIGHT THING



- **Good:** Compost and recycle
- **Better:** Be choosy about what you eat
- **Best:** Don't eat it!





Austin

COMMUNITY
2015
CLIMATE PLAN





AUSTIN RESOURCE RECOVERY MASTER PLAN

DECEMBER 15, 2011

APRIL 2015

STATE OF THE FOOD SYSTEM REPORT



OFFICE OF SUSTAINABILITY

CITY OF AUSTIN



Recovering Food

Keeping food out of the landfill not only saves money, conserves natural resources, and reduces climate change impacts caused by the methane produced by food waste, it is also a critical step in reducing food insecurity. The City of Austin is pursuing the goal of zero waste through various composting initiatives and pilot programs. Any efforts to reduce wasted food should follow the Food Waste Hierarchy: first, food for humans; then animals; then compost; and finally, for the landfill. This approach ensures that food is redirected to those in need—while also ensuring a safe food chain.

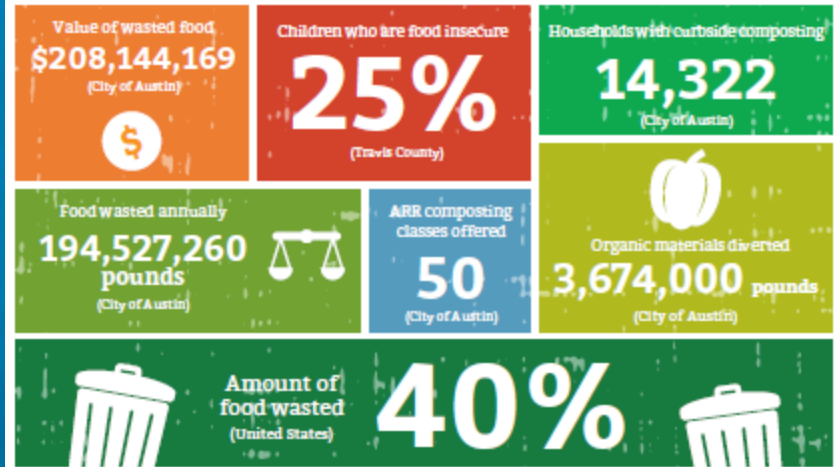


City of Austin Actions

To demonstrate how restaurants can help meet Austin's Zero Waste goal, Austin Resource Recovery (ARR) launched a Restaurant Composting and Recycling Pilot Program in September of 2012. Fourteen local restaurants participated in the pilot; more than half of these participating businesses experienced a considerable reduction in their trash collection service. In April of 2013, Council approved an ordinance requiring all Austin restaurants to begin composting by 2018, as well as start recycling paper, plastics, and aluminum by 2017.

Austin Resource Recovery also launched the Curbside Organics Collection Pilot for residents in 2012. Currently, approximately 14,000 households are offered weekly curbside collection of food scraps, food-soiled paper, and yard trimmings. Organic materials collected at the curb are turned into nutrient-rich compost.

Austin Resource Recovery also promotes composting through rebates and training. Since the program's inception, more than 500 rebates have been issued and more than 1,000 residents have taken the composting training, which is offered free of charge at various locations or online, in both English and Spanish.



Value of wasted food
\$208,144,169
(City of Austin)



Children who are food insecure

25%

(Travis County)

Households with curbside composting

14,322

(City of Austin)

Food wasted annually

194,527,260
pounds

(City of Austin)



ARR composting
classes offered

50

(City of Austin)



Organic materials diverted

3,674,000 pounds

(City of Austin)



Amount of
food wasted
(United States)

40%



AUSTIN UNIVERSAL RECYCLING ORDINANCE



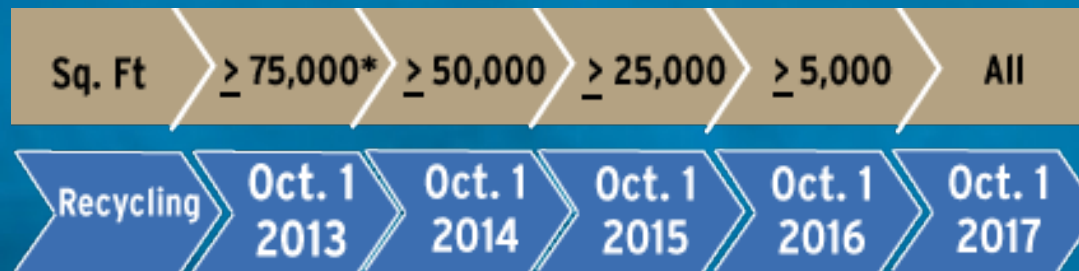
AUSTIN UNIVERSAL RECYCLING ORDINANCE



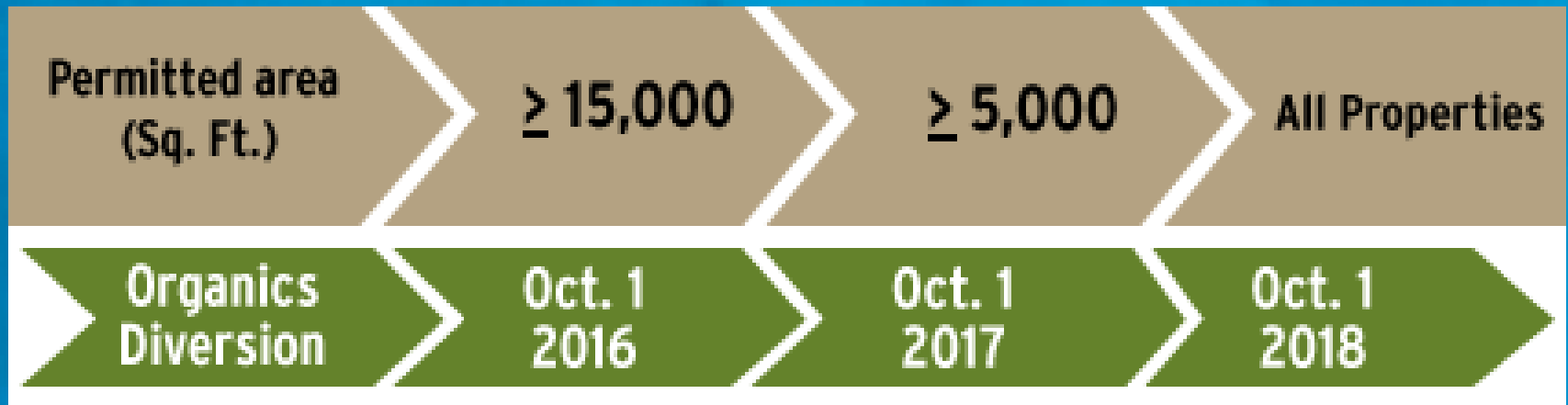
Multifamily Residential Properties



Commercial Non-Residential Properties



AUSTIN UNIVERSAL RECYCLING ORDINANCE



AUSTIN UNIVERSAL RECYCLING ORDINANCE

Affected Food Establishments:

- Restaurants
- Food retail (grocery stores)
- Catering operations
- Commercial kitchens
- Food banks
- Food processing plants and food distribution centers
- Temporary food establishments
- Mobile food vendors or food courts



COMMERCIAL FOOD SERVICE

ZERO WASTE TIP SHEET



ZERO WASTE TIP SHEET

COMMERCIAL FOOD SERVICE

Restaurants, cafeterias, grocery and catering.



SAVE MONEY, REDUCE WASTE AND COMPLY WITH THE UNIVERSAL RECYCLING ORDINANCE.

Conduct a food waste assessment to measure and track the amount, type and reason for food generation and disposal. For a quick assessment, look in containers and document the weight and types of food scraps at the end of service.

A food service enterprise serves non-prepackaged food and is required to hold a City of Austin food permit:

Deadline	Oct. 1, 2016	Oct. 1, 2017	Oct. 1, 2018
Business Size	≥ 15,000 Sq. Ft.	≥ 5,000 Sq. Ft.	ALL

SET-UP YOUR KITCHEN (BACK OF HOUSE) FOR ZERO WASTE:

- 1. Disposal Stations** - Landfill trash, compost and recycling containers should be located near each other and be clearly marked. Recommend black for trash, blue for recycling and green for organics.
- 2. Staff Training** - Using disposal containers correctly is critical to the success of your program. Clearly communicate expectations and hold employees accountable. Use signs, color containers and posters for quick reminders.
- 3. Green Team Lead** - Designate at least one supervisor or manager to regularly check containers to ensure items are properly disposed in the correct container.

- 4. Materials** - Replace disposable items with reusable, compostable or recyclable options. For example, switch Styrofoam cups for paper cups and cloth napkins instead of paper.



- 5. Ask Your Staff** - When designing your recycling and composting program, include staff in the decision-making process. Engaged employees can lead to better decisions, improved morale and reduced costs.



REDUCE FOOD WASTE:

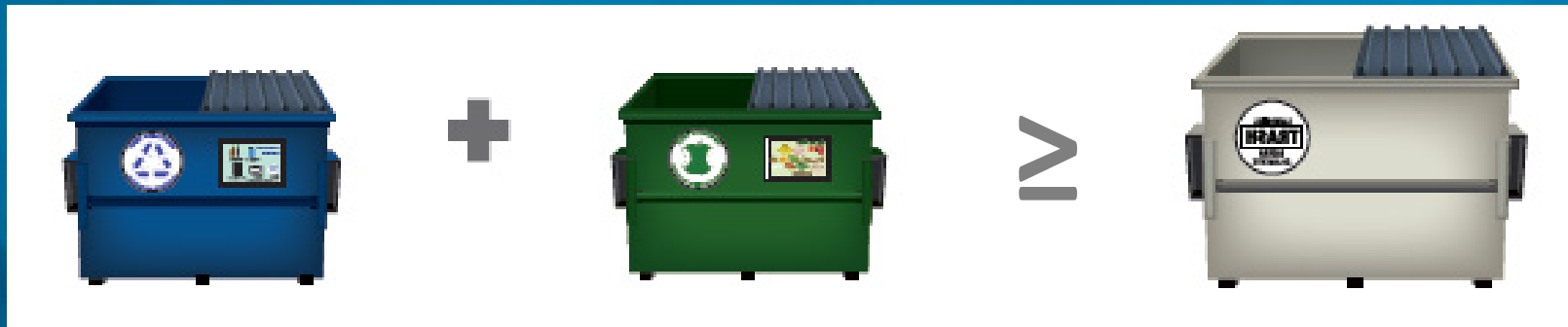
- Reduce Over-Purchasing** - Consider local grocers and more frequent deliveries to prevent bulk food purchases from expiring. Less than perfect food can be used in soups and casseroles or donated to local food pantries.
- Reduce Prep Waste** - Train staff to use proper food preparation techniques, purchase pre-cut food and reduce batch sizes when reheating.
- Secondary Uses** - Leftover bread can become croutons, leftover fruit can be a dessert topping and vegetable trimmings can form a base for soups and sauces.
- Inventory Management/Mind Your Menu** - Create a system to manage foods near expiration. Promote daily specials that use foods near expiration. Consider donating to local charities.



AUSTIN UNIVERSAL RECYCLING ORDINANCE

MINIMUM ORGANICS DIVERSION URO REQUIREMENTS:

1. Reuse, reduction, food donation or compost
2. Back of House diversion
3. Diversion capacity \geq trash



AUSTIN UNIVERSAL RECYCLING ORDINANCE

Reduce Food Waste (Back of House):

- Reduce over-purchasing
- Reduce prep waste
- Secondary uses
- Inventory management
 - Daily specials for foods near “best by” date

REDUCE FOOD WASTE

AUSTIN UNIVERSAL RECYCLING ORDINANCE

Reduce Plate Waste (Front of House):

- Menu modifications
- Change serving sizes and garnishes
- Encourage guests to take only what they can consume
- Go tray-less
- Condiments and cutlery behind the counter

REDUCE PLATE WASTE (FRONT OF HOUSE)

OTHERS SAY ROBYN METCALFE

Special Contributor

Eat more trimmings to help trim amount of food wasted

We need to think more about how food gets to us. You know, those big semi-trailer trucks that hang in the right lanes of our highways, with the word “logistics” painted on their sides. Pizza ingredients for Domino’s, potatoes from Idaho, and milk from Wisconsin travel through our international highway system night and day. Somewhere at the end of their treks, we consume their cargos and leave behind

Several Austin-area restaurants prepare dishes from often-rejected animal parts.

fish unintentionally caught along with targeted fish

guests, they revealed their tin ear when it comes to understanding consumer perceptions of food.

We should be more about can keep it. Labeling information da fuse consumer safe shell products. “Best by” well-intentioned lead to the food that



Several Austin-area restaurants, such as Odd Duck, prepare dishes made from often-rejected animal parts such as turkey wings, pig cheeks and ears.

RESIDENTIAL ORGANICS DIVERSION

- Curbside Organics Collection
- Home Compost Rebate



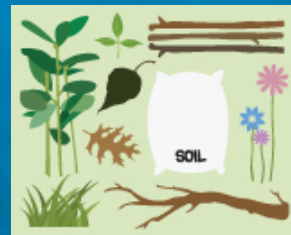
CURBSIDE ORGANICS COLLECTION



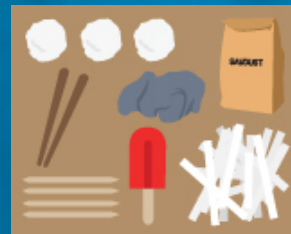
Food Scraps



Food-Soiled Paper



Yard Trimmings



Natural Fibers

HOME COMPOST REBATE

Originally

1



GET A FREE
COMPOST
COLLECTOR WHEN
YOU ATTEND!

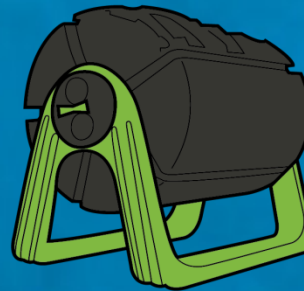
TAKE A FREE
COMPOSTING CLASS

2



DOWNSIZE TO A
24-GALLON OR
32-GALLON TRASH CART

3



PURCHASE A HOME
COMPOSTING
SYSTEM

4



EARN YOUR
REBATE

HOME COMPOST REBATE

Currently

- Choose a classroom:
 - Community classes
 - Online tutorial
- Rebate or Advance
 - Go Local Plan: \$75 coupon **before** purchase
 - Go Anywhere Plan: \$75 rebate **after** purchase

www.austintexas.gov/composting

HOME COMPOST REBATE

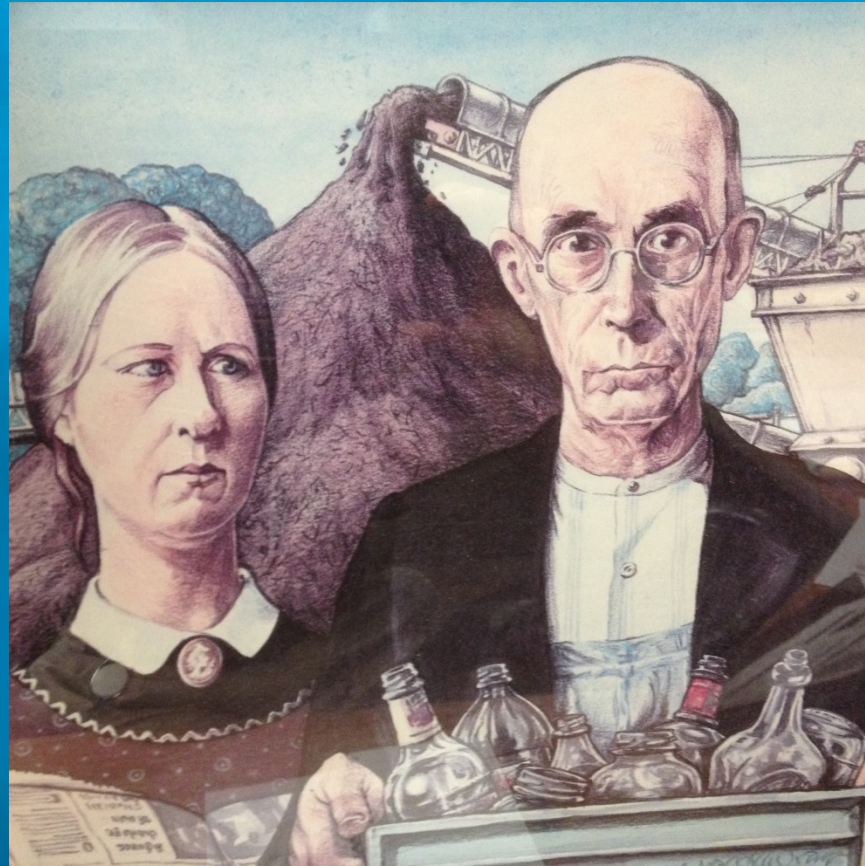
4 Years	FY10-13
Total Attendees	7,665
Classes	215
Total Rebates	2428





LOVE MORE... CONSUME LESS

Woody Raine, P.E.
Zero Waste Planner
Austin Resource Recovery



woody.raine@austintexas.gov / 512-974-3460