



# What's the Big Deal About Food Waste?

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Staff from NRRRA, NHDES, ME DEP



## USDA Disclaimer:

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# Talking Points

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Introduction & Welcome

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Overview of Food Waste in the US and NH

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Food Waste Diversion Techniques

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Food Waste Reduction and Diversion at Institutions

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Food Waste Facilities in NH

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Identifying Education Campaigns

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Closing Remarks



# Food Waste in the United States

Mike Nork, NHDES



# Where does food loss occur?



FARMS



MANUFACTURERS



RETAILERS

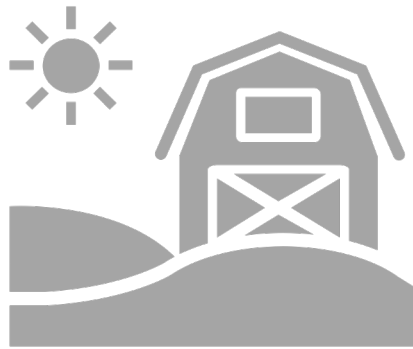


FOOD SERVICE



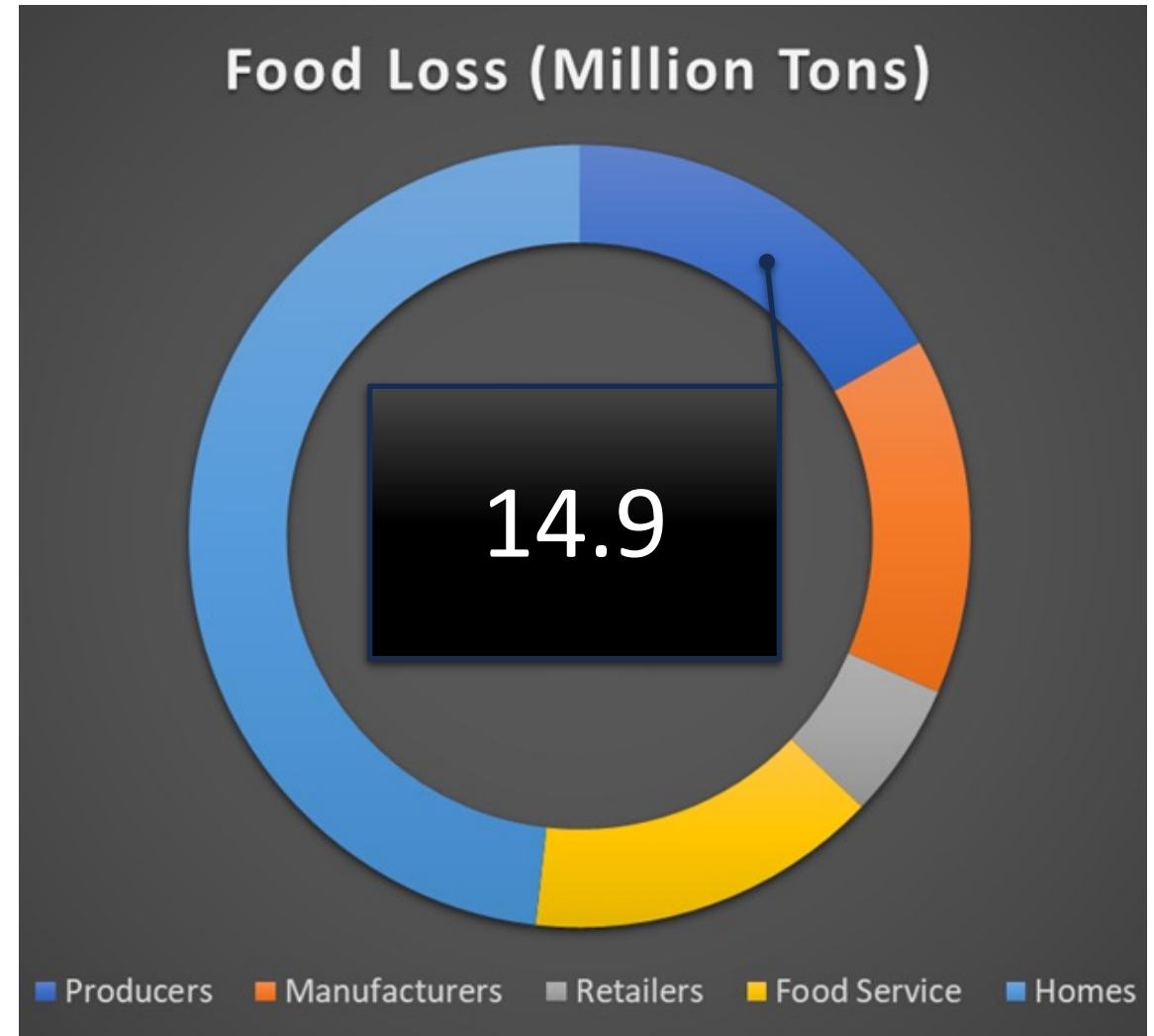
HOMES

# Food loss from Producers



**Farms do not harvest what they produce**

- Cosmetic standards
- Market forces
- Labor Shortages

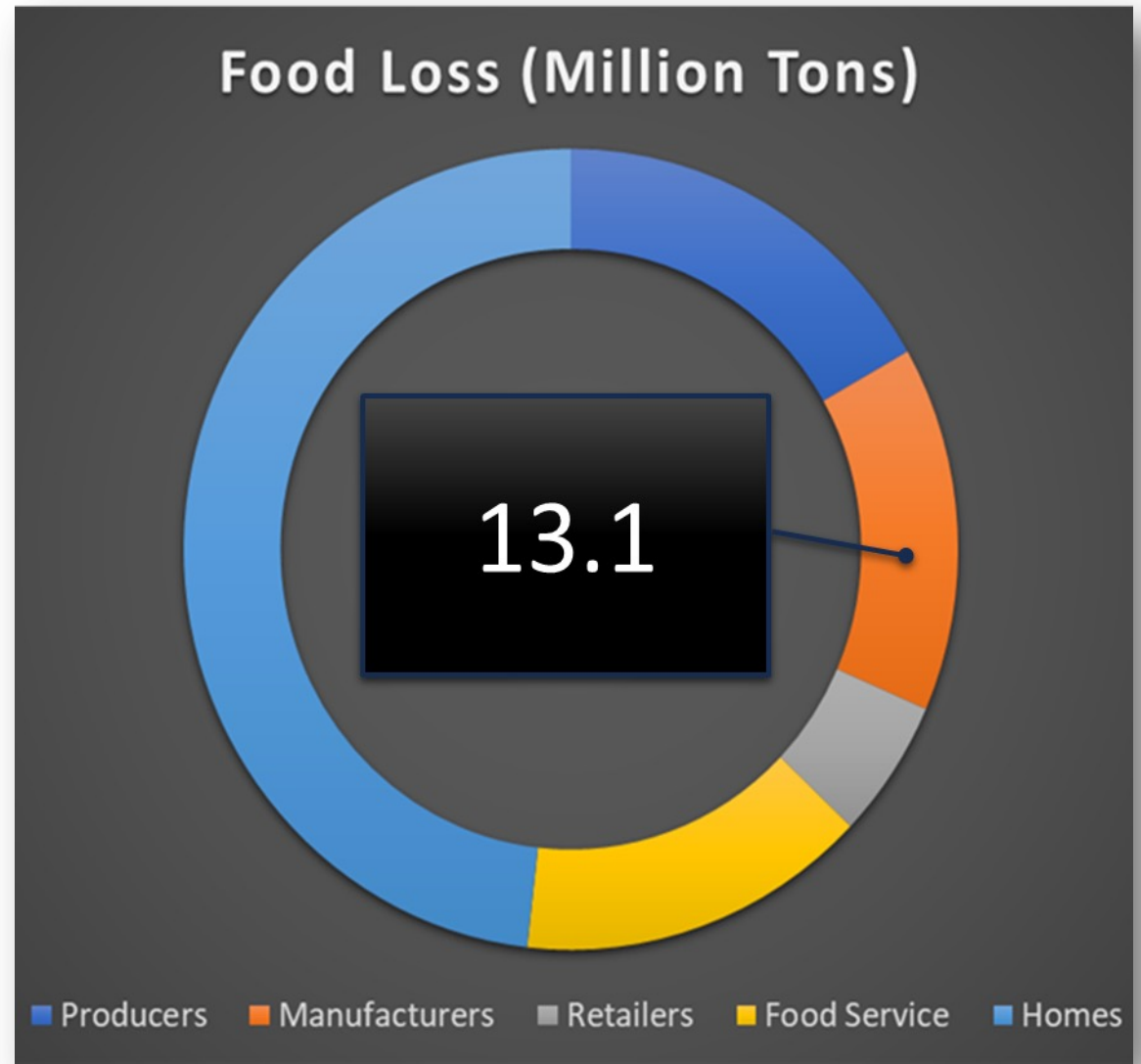




# Food Loss from Manufacturers

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- Waste by-products from processing (stems, peels, bones, etc.)
- Waste from switching production lines to make different products



# Food Loss at Retailers

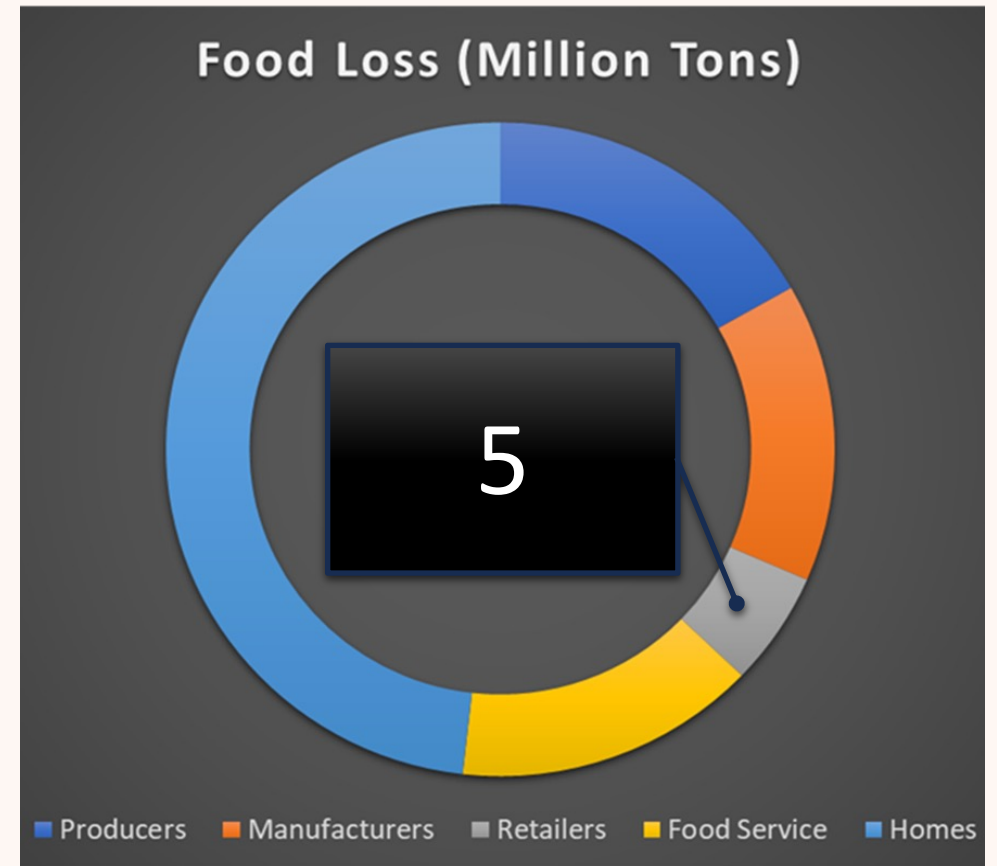


## Retailers

High customer standards for freshness,  
quality & variety

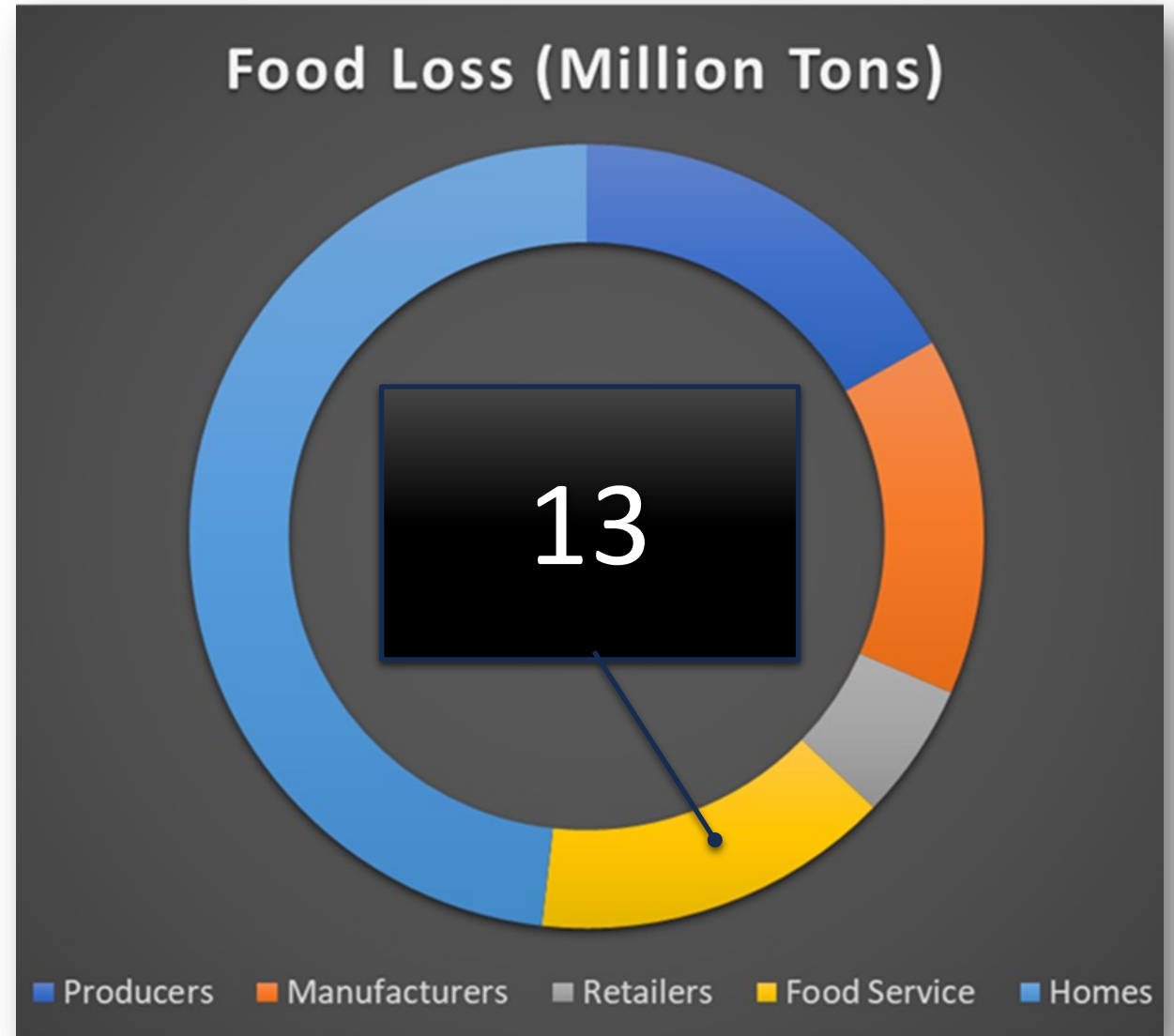
Inefficiencies in inventory management

Date label concerns



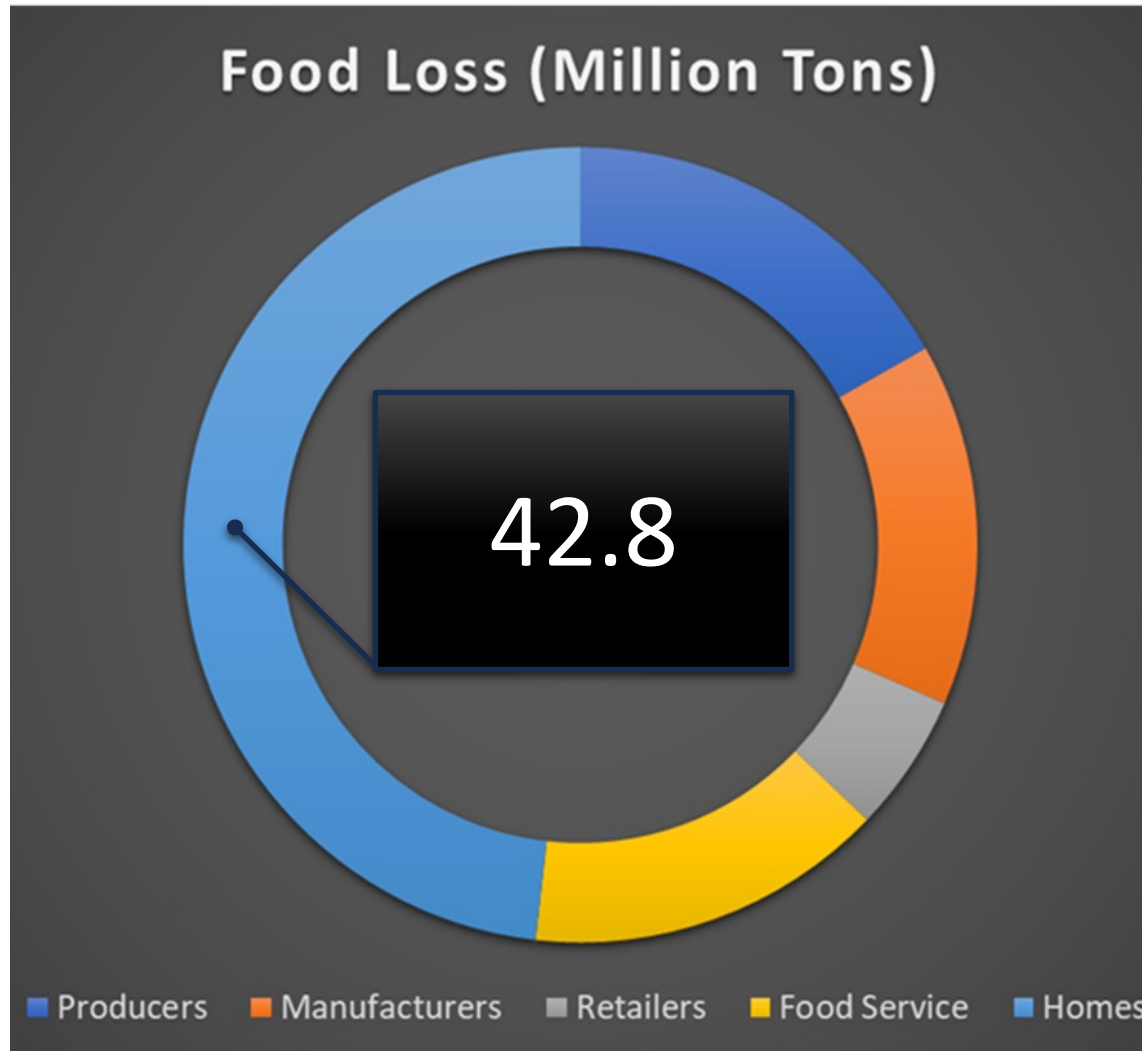
# Food Loss at Food Service Areas

- Difficulty forecasting demand
- Improper storage
- Inefficient preparation techniques
- Plate waste from customers
- Portion sizes



# Food Loss in Homes

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- Lack of planning
- Buying in bulk because it's a "good deal"
- Misunderstanding storage requirements and date labels

Over 88 Million Tons of surplus food generated in 2022 (Source: ReFED)

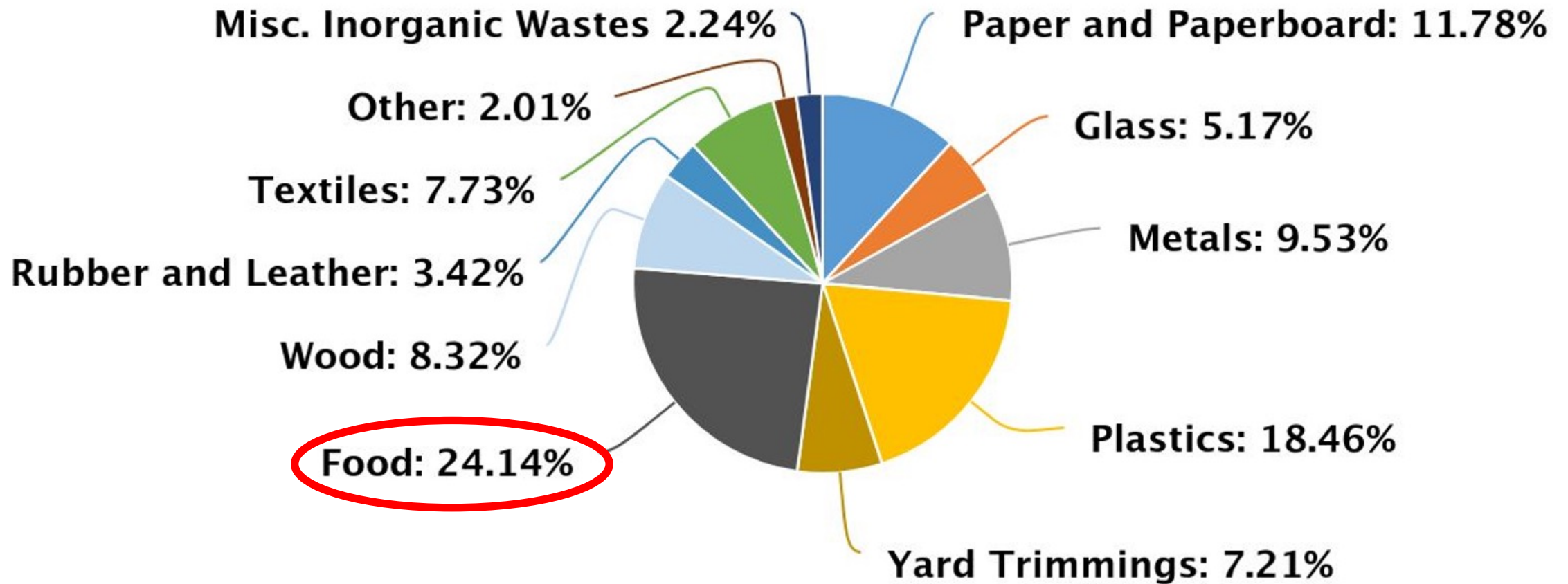
1.83 Million Tons Donated

9.3 Million Tons Recycled

77.6 Million Tons Wasted  
(Landfills, Incinerators,  
Sewer)

Meanwhile, 12% of U.S. households experienced food insecurity in 2022  
(Source: USDA)

# Breakdown of Municipal Solid Waste (MSW) Landfilled Nationwide, 2018



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# Impacts of Surplus Food

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Uneaten food represents a huge waste of energy & resources

- Land
- Water
- Transportation
- Preparation/processing
- Refrigeration

# The Food We Don't Eat Represents...



6.1% of total U.S.  
greenhouse gas  
emissions



22% of total fresh water  
use



16% of cropland



\$473 billion total costs to  
producers, retailers,  
consumers





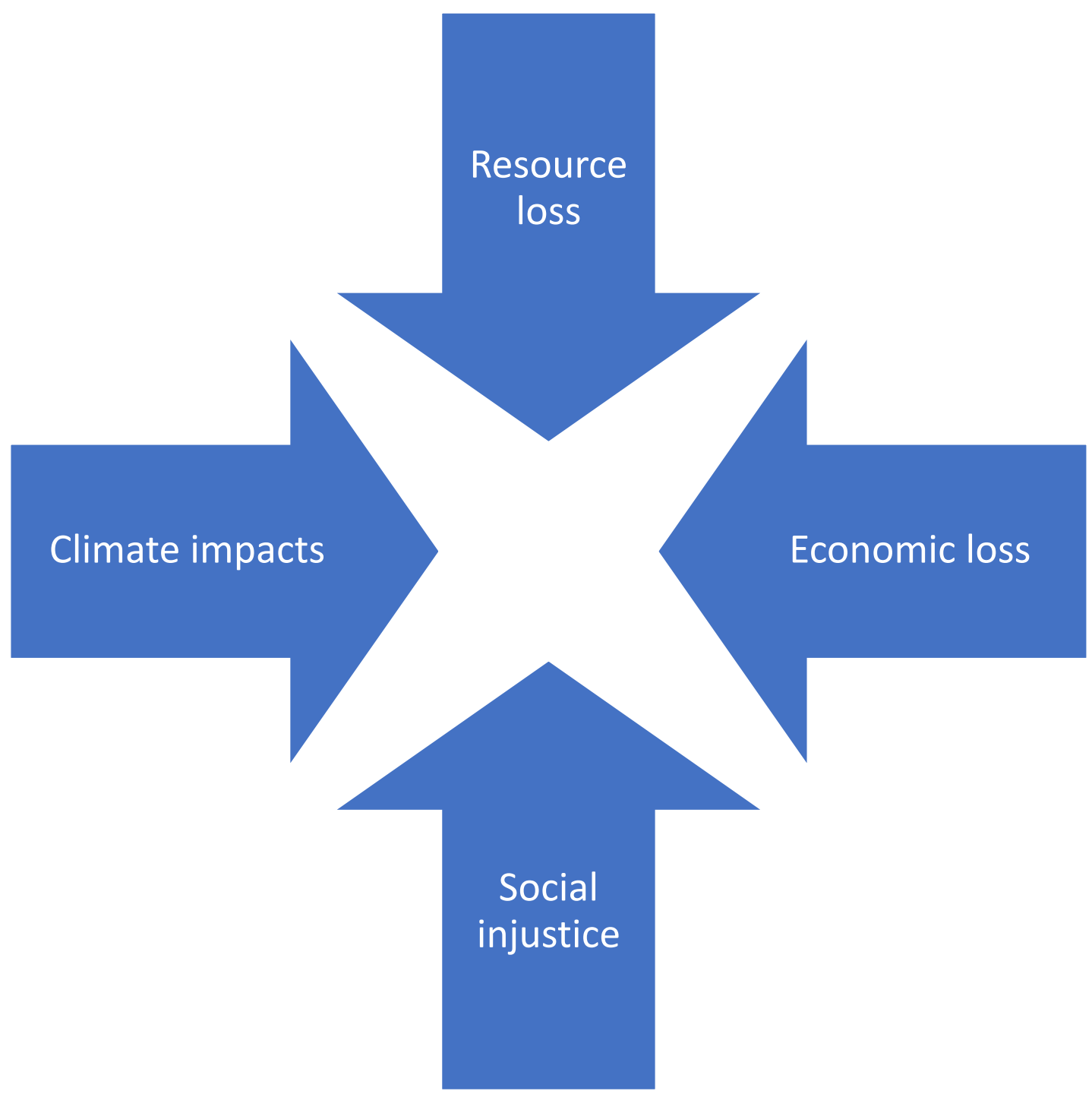
# Food Waste Disposal in New Hampshire

**702,153** Tons of MSW disposed by NH businesses & residents in 2022

Of this, **168,516** Tons were Food Waste  
(based on EPA's 24% estimate)

**That's over 8,400 tractor trailers of wasted food!**

Food waste  
is a multi-  
faceted  
problem



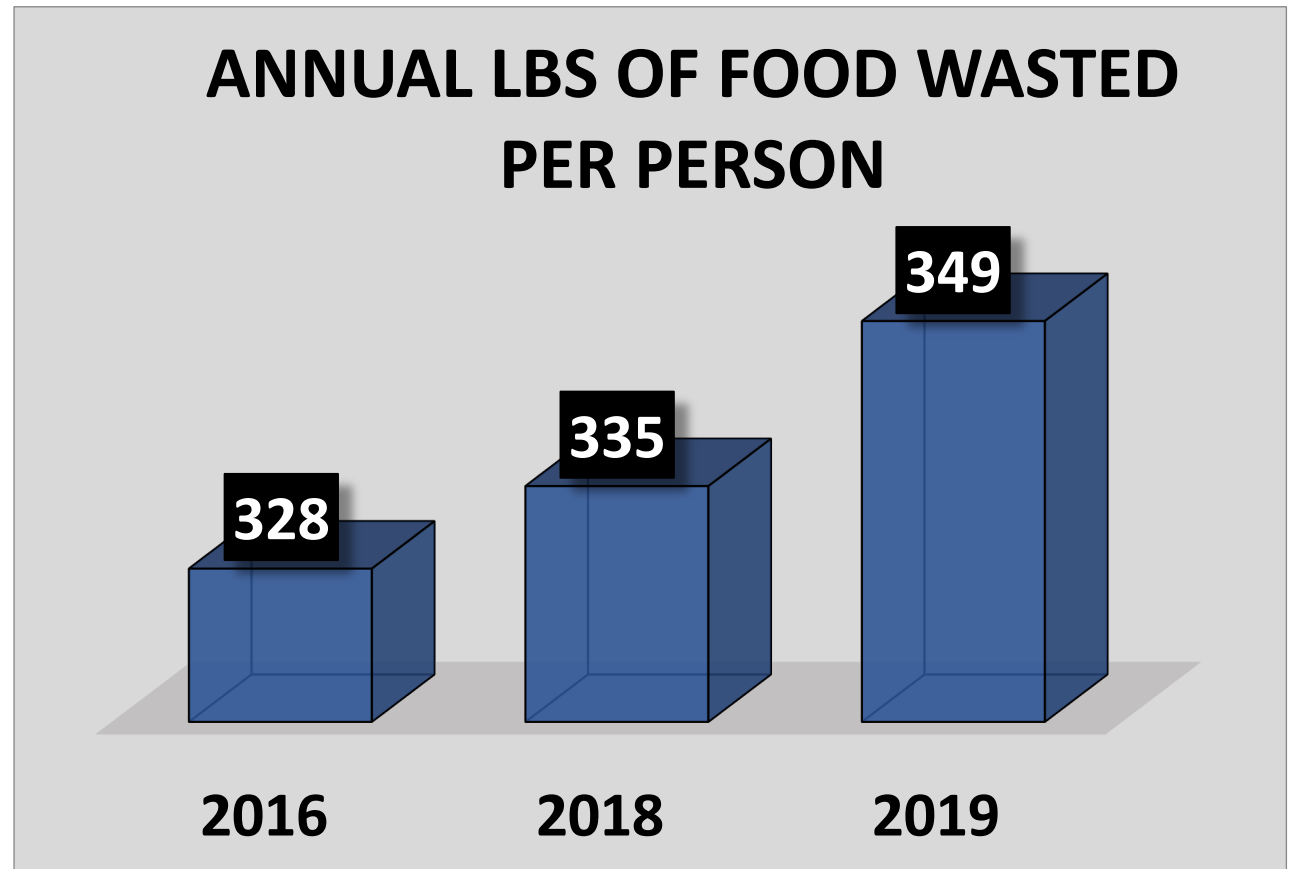
Tackling the  
Problem...



Collaboration between EPA, USDA and FDA

- Reduce food loss and waste 50% by 2030
- Effort to keep food within the “food supply chain” and minimize need for composting, digestion, and disposal via landfilling, incineration, etc.

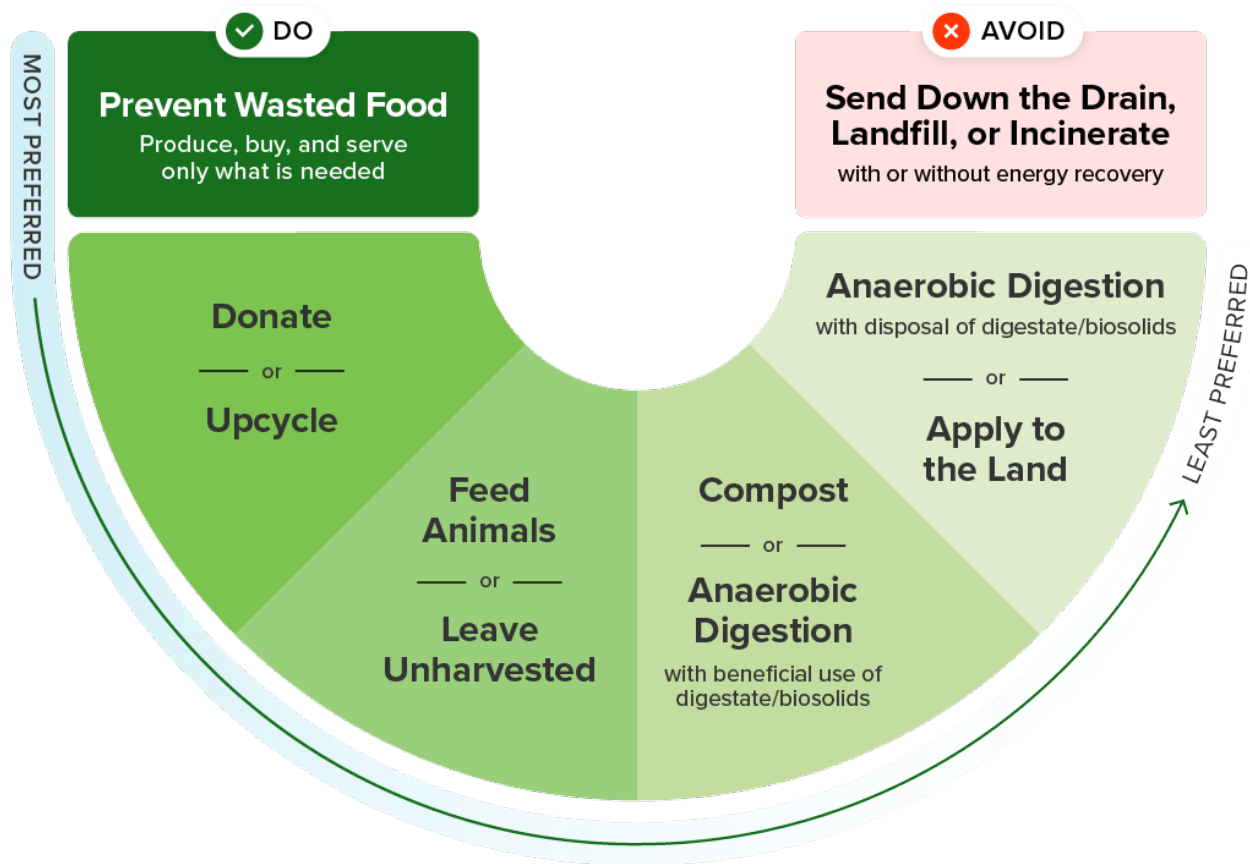
# U.S. 2030 Food Loss and Waste Goal





# Wasted Food Scale

How to reduce the environmental impacts of wasted food



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# Efforts in New Hampshire

2022 New Hampshire Solid Waste Management Plan includes action items addressing food waste

Develop

educational resources about preventing food waste

Promote

the EPA Wasted Food Scale to promote preferable practices

Maximize

utilization of composting or other food waste diversion



# Efforts in New Hampshire Food Waste Disposal Ban

- Effective 2025
- Entities generating 1 ton/week of food waste must not dispose in landfill or incinerator provided that there are alternative facilities within 20 miles that have capacity to manage the food waste (RSA 149-M:27, V.)
- Preferred management pathways mirror EPA Wasted Food Scale
  - Prevention
  - Consumption by humans
  - Consumption by animals
  - Composting/Digestion

# Efforts in New Hampshire

## Diversion Grants

- New funding program to provide matching grants – coming soon!
- \$500,000 in funding prioritized for food waste-related projects.



Questions?

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# Resources

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[ReFED Food Waste Overview](#)

[USDA Household Food Security in the United States 2022](#)

[EPA Facts & Figures – MSW Landfilled 2018](#)

[EPA Quantifying Methane Emissions from Landfilled Food Waste](#)

[U.S. 2030 Food Loss and Waste Reduction Goal](#)

[EPA Wasted Food Scale](#)

[2022 New Hampshire Solid Waste Management Plan](#)

[New Hampshire Food Waste Disposal Ban \(RSA 149-M:27, V.\)](#)

# Who is With Us Today?

Raise your hand if...



# Food Waste Diversion Techniques for Municipalities & Residents

Reagan Bissonette, NRRRA



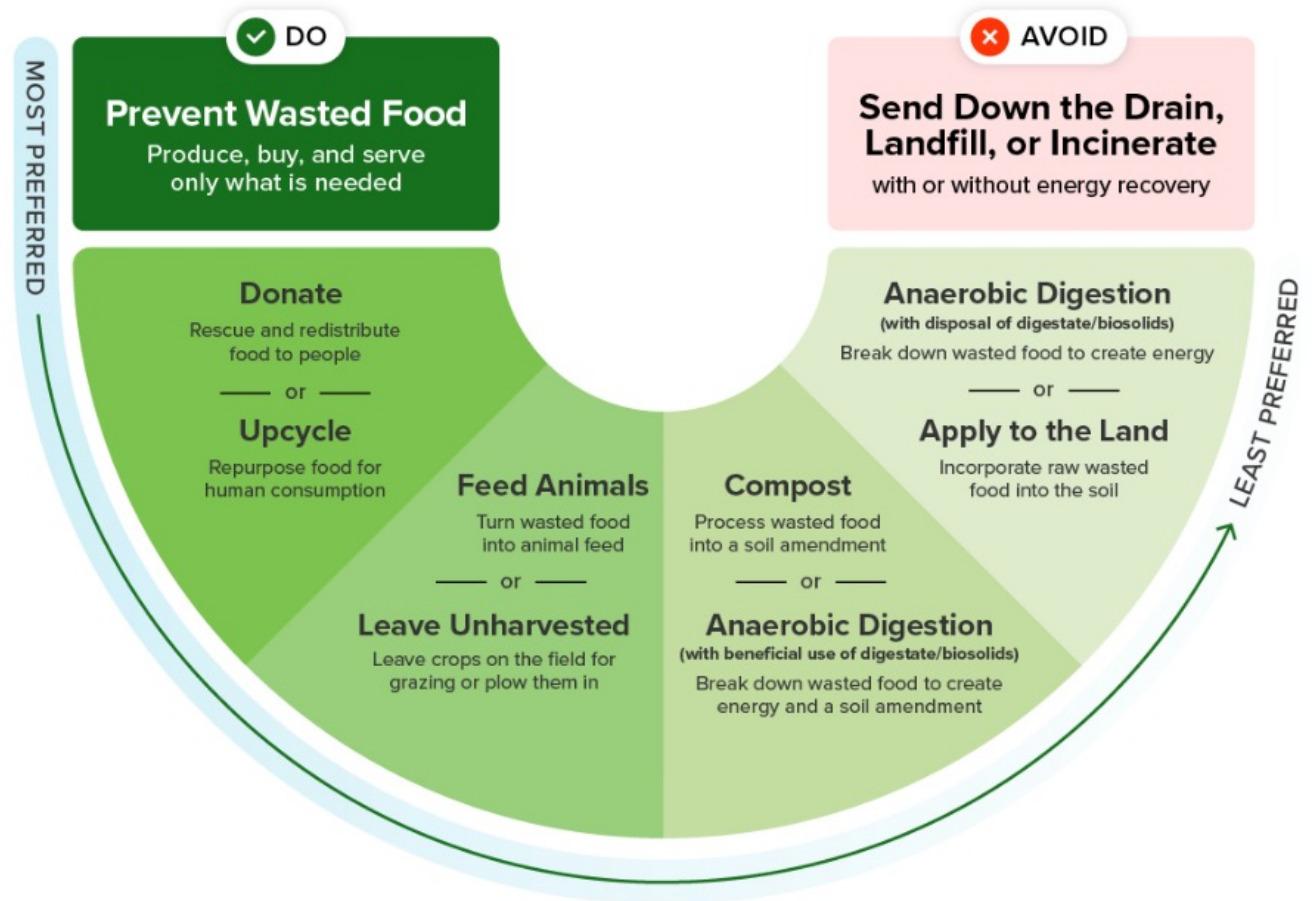
# What We'll Cover

- Wasted Food Scale Examples
- Focus on Composting & Anaerobic Digestion



## Wasted Food Scale

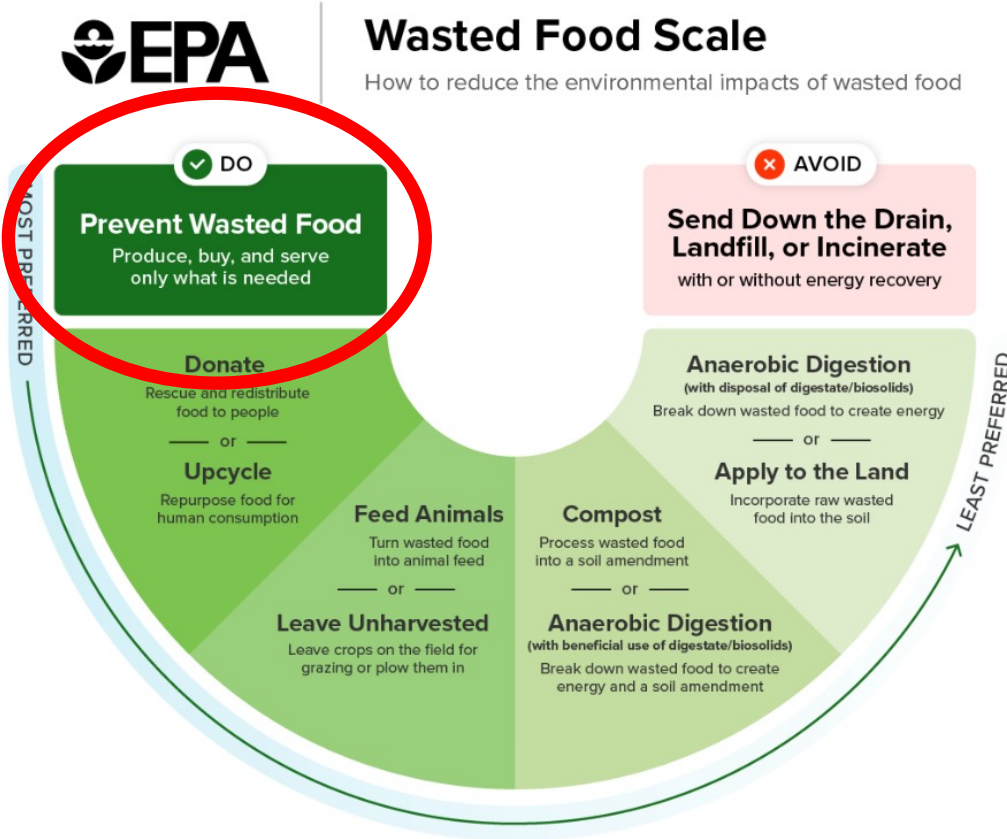
How to reduce the environmental impacts of wasted food



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# Prevent Wasted Food

Who eats leftovers?



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# Donate or Upcycle

Donate: Who has a food pantry in their community?

Upcycle: Typically takes places at production or manufacturing stage



# Feed Animals or Leave Unharvested

Who has a farm that accepts food scraps for animals in their community?

Example: Meadowstone Farm in Bethlehem feeds laying hens (and also composts)



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# Compost or Anaerobic Digestion (beneficial use)

Anaerobic Digestion may occur at:

- Stand-alone digester
- On-farm digester (ex. Agri-cycle in Maine)
- Digester as wastewater treatment facility (ex. WM Core in Boston)



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# AD (no beneficial use) or Apply to Land

Who knows a farm that incorporates wasted food directly into the soil?



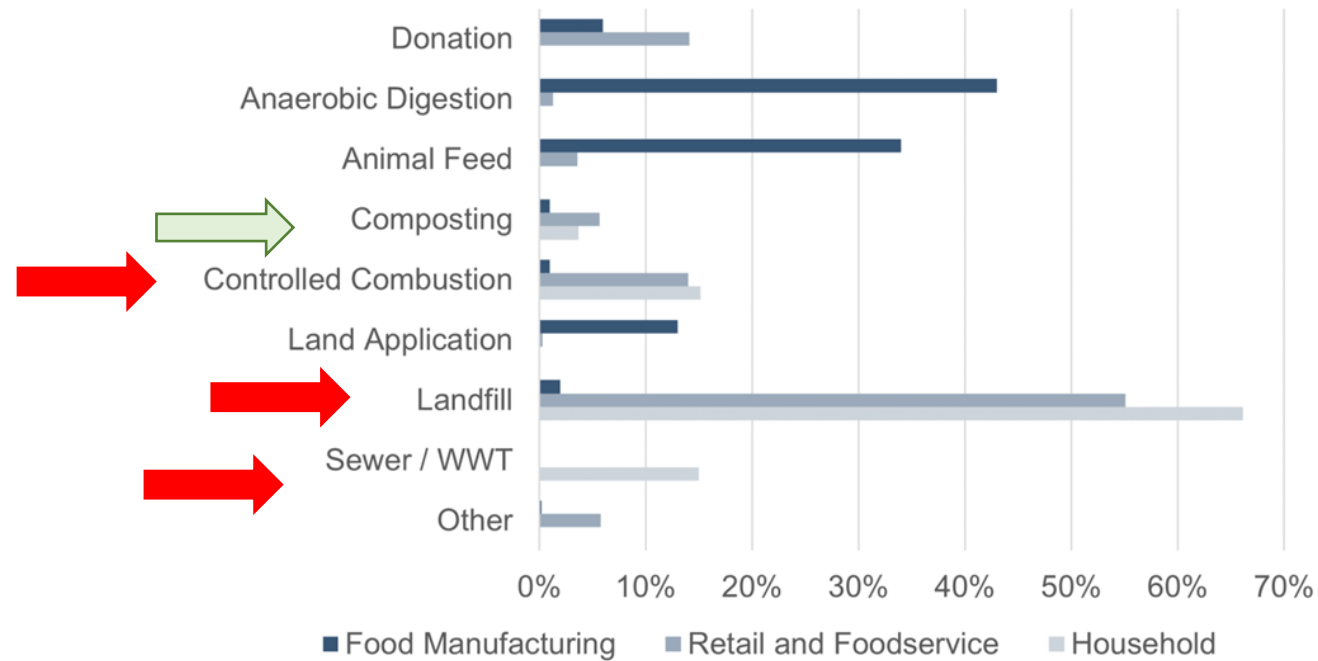
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# AVOID

What we do with most of our food waste



# What We're Doing with Household Food Waste



**FIGURE 1-1. PERCENTAGE OF WASTED FOOD MANAGED BY EACH PATHWAY, BY SECTOR IN WHICH THE WASTED FOOD IS GENERATED**

Each sector sums to 100%.  
Data Source: U.S. EPA (2023a)

# Collection & End Markets

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Composting & Anaerobic Digestion





## Collect at Home & Backyard Compost

- Example: Pembroke Solid Waste & Recycling Committee
- Sells compost bins to residents through NRRRA's compost bin sale

# Collect and Compost Onsite at Permitted Transfer Station

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Example: Town of Hollis composts at transfer station





## Collect Onsite at Permitted Transfer Station, Process Elsewhere

- Lee uses Mr. Fox service (composted in Maine)
- Bedford uses Renewal Compost (composted in NH)
- Pelham uses Vanguard Renewables (anaerobic digestion in MA)



# Collect Elsewhere, Process Elsewhere

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- Bow recently completed composting pilot program
- Residents drop off at Bow Community Center
- Composted with Renewal Compost



# Private Subscription Services

- Renewal Compost serves Concord
- Offers both curbside for residents and drop-off location





Let's take a break!

# Food Waste Reduction & Diversion at Institutions

Paige Wilson, NHDES

# Institutions

## **Examples:**

- K-12 schools
- Summer camps
- Universities/colleges
- Hospitals
- Museums

## **Commonalities:**

- ✓ Provide food service
- ✓ Cafeterias/dining areas
- ✓ Allow bagged lunches

Institutions need to consider sources of waste/contamination:

- Internal (staff, students, patients, etc.)
- External (visitors, parents, etc.)

# BEFORE you make a change...

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## Consider doing an AUDIT

- *How much is being wasted?* Pounds > Tons
- *What is being wasted?* Salad bar, pre-packaged meals, fruits, etc.
- *Where is most of the waste coming from?* Kitchen prep vs. post-consumer

Step-by-step guides and recording logs available.

Results will help you determine what to focus on.

# Techniques to reduce & divert food waste

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- Consider food service style
  - Buffet, family style, staff-served meals
- Rearrange cafeteria/dining hall layout
- Separate and collect food waste for composting, farms, etc.
  - May require a permit.
  - Hauler needs to be registered with NHDES.



# K-12 Schools/Summer Camps Sorting stations, waste bins

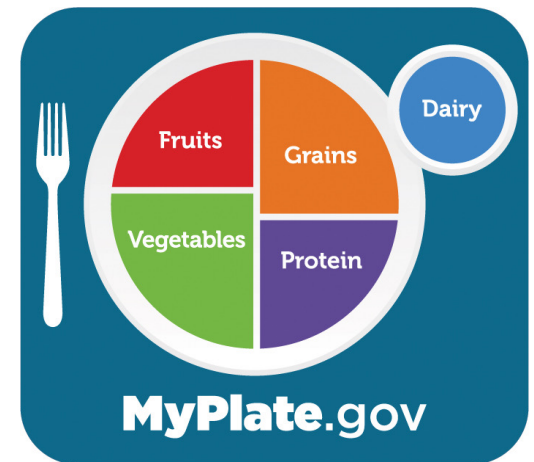




# Techniques to reduce & divert food waste\*

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- Maximize use of food
  - Veggie scraps = soup stock
  - Leftover grilled cheeses from lunch = croutons for tomato soup at dinner
- Set up a share table
- Adjust meal options
- Reduce portion sizes



\***May be limited** by state or federal food safety requirements and/or nutrition programs.

# YMCA North Woods/Pleasant Valley Camps



Harvest for dining hall



Eat. Collect food waste



Raised bed gardens



Compost on-site



# Food Waste Composting in NH

# Regulatory Options for Composting Food Waste

## Permit

Notification to NHDES (supplement to an existing permit).

Small Food Waste Composting Permit by Notification

Standard Permit for a Process & Treatment Facility

## Who Qualifies?

Any municipal transfer station that holds a PbN for a Limited Public SW Transfer Station/Recycling Center

Small-scale facilities that receive  $\leq 10$  tons per day and pose little or no threat to human health or the environment.

Facilities that accept 10 tons of food waste per day or more.

# Small Food Waste Composting PbN Facilities

<b>Facility</b>	<b>Service Area</b>
Bedford Small Food Waste Composting Facility	Town of Bedford, NH
GBN Farms in Chester	Unlimited Service Area
Granite State Compost in Farmington	Unlimited Service Area
Keene Small Food Waste	Unlimited Service Area
Lebanon Food Waste	Unlimited Service Area
Milford, Town of	Unlimited Service Area
Peterborough Small Food Waste	Unlimited Service Area
Plaistow Composting Facility (Pending)	Unlimited Service Area
Renewal Compost Facility in Derry	Unlimited Service Area
Star Island in Rye	Unlimited Service Area
Stonewall Farm in Keene (Pending)	Unlimited Service Area
Winter Street Farm in Claremont	Unlimited Service Area

# What About Other Facilities?

- There are a handful of municipal transfer stations that have notified that they will be conducting food waste composting on-site.
- The service area for these facilities is the one listed in their PbN.
- This notification process was put into play prior to the Env-Sw 600 rule updates in 2022.
- It is up to each facility to choose which regulatory option they go with.

# Who to contact when...

- Making changes to your existing permit?
- Questioning whether you need to make changes?
- Wanting to apply for a NEW permit?
- Figuring out who is taking food waste near you?
- ...Looking for information on other things not listed revolving around food waste and solid waste permitting?

Contact the SWMB either through [swmbpermitting@des.nh.gov](mailto:swmbpermitting@des.nh.gov) or (603) 271-2925.

Questions?





The background of the slide features a dark green, textured surface. Scattered across this surface are numerous paper cutouts of human figures in a dark grey color. These figures are arranged in a way that suggests they are holding hands, forming a crowd or a line. The figures are slightly out of focus, creating a sense of depth. The overall aesthetic is clean and modern, with a focus on community and human connection.

# Education and Outreach Campaigns

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Andrea Folsom, NRRA

# Getting the Word Out

Ongoing, consistent messaging through signage, videos, social media, presentations, or mailings - **and often a mix of all** - is the best way to support a successful food waste diversion program.

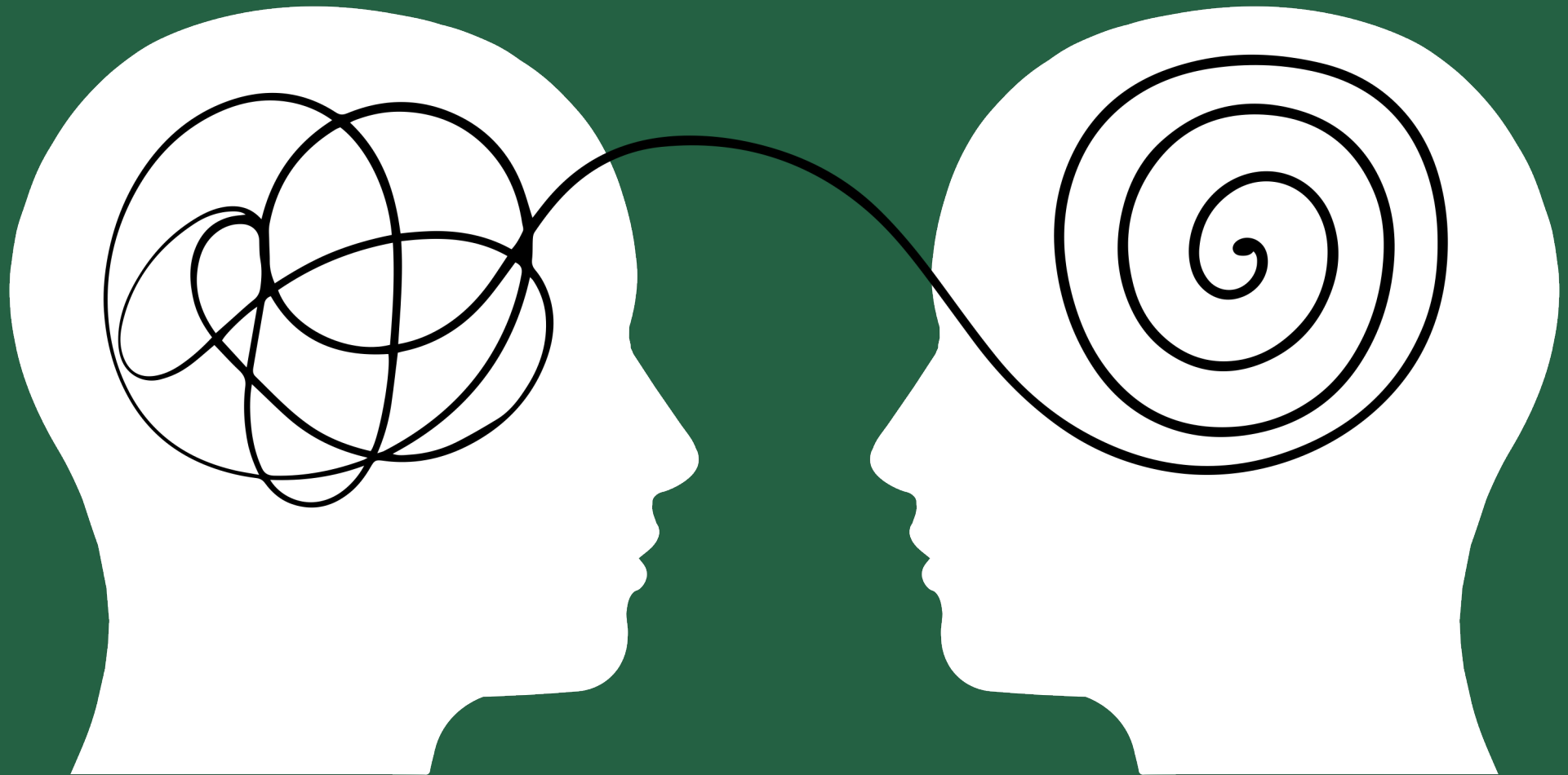


# What to Say?

- **Empathetic messaging** – “Confused about composting?”
- **Logical messaging** – “Food waste makes up 24% of MSW going into the landfill. Diversion reduces this percentage.”
- **Emotional messaging** – “As landfills overflow, have you ever wondered what tomorrow may bring?”



Empathetic messaging can be a powerful tool for behavior change.



# Large Campaigns

- NRRRA's Recycle Right Campaign
- The Recycling Partnership
- North Carolina Recycle Right
- Recycle Right New York

## COMPOST

### YES!

All foods (raw, cooked, scraps) and plant trimmings

YES!

Compostable paper products (paper only, no plastic lining)

Leave produce bags/stickers OUT of your collection!

The N.C. Division of Environmental Assistance and Customer Service (DEACS) is a non-regulatory division of N.C. offering technical and financial assistance to businesses, manufacturers, local governments, institutions, developers and citizens in environmental management. For questions, call 1-877-623-6748. www.recycle.nc.gov

**NRRRA**  
Northeast Resource Recovery Association

Did you know?

## LANDFILLS ARE NOT GIANT COMPOST PILES!

NO MORE #RECYCLINGMYTHS

The Recycling Partnership  
Solving for Circularity

## Let's customize your campaign materials

Answer five questions to customize your FREE campaign materials to help tackle your top recycling issues. It's like magic, but more practical and effective.

Let's Go

# Local Campaigns

- Gilford Recycle Right
- Lancaster Pay-As-You-Throw
- Swanzey's new Recycling Center



**Gilford Solid Waste Center  
Separating Recyclables**

MATERIAL	CAN INCLUDE	DO NOT INCLUDE	NOTES
Cardboard	All corrugated cardboard (incl. clean pizza boxes)	NO waxed boxes, messy pizza boxes or plastic film packaging	Please flatten Tape OK Shiny finish OK
Mixed Paper	Junk mail, magazines, egg cartons, newspaper, office/school paper, phone books, shredded paper, paperbacks	NO paper towels, tissues, napkins NO corrugated cardboard or waxed boxes such as milk or juice cartons NO beverage boxes	Staples, paper clips and window envelopes are OK!
Plastics	#1, #2, #5, and #7 Plastic bottles, jars, tubs and containers only	NO caps, plastic bags, plastic film, styrofoam, bubble wrap, straws, or BLACK plastic	Please remove caps Empty food & rinse Look for ♻️ symbol
Polystyrene	#6 Plastic - See separate	Foam #101 Flyer for details	
Steel/Tin Cans	Soup, food, coffee cans	NO paint and aerosol cans	Please rinse Labels OK Sticks to a magnet
Aluminum Cans	Beverage cans	NO aluminum foil, pie plates or pet food cans	Please rinse Labels OK Will not stick to a magnet
Glass	Glass bottles and jars	NO porcelain sinks & toilets, light bulbs, headlights or windshields.	See attendant for special instructions on items in NO column

**RECYCLABLES MUST BE SEPARATED BEFORE COMING TO GSWC**

**GILFORD RECYCLE CENTER**  
100 Recycle Way, Gilford NH 03249  
OPEN Tues - Saturday, 8am - 3:45pm  
WEBSITE: [www.gilfordnh.org/recyclelight](http://www.gilfordnh.org/recyclelight)  
EMAIL: [recycle@gilfordnh.org](mailto:recycle@gilfordnh.org)  
PHONE: 293-0220

*\*\* Please contact DPW with any questions on what is recyclable in the Town of Gilford. Remember "When in Doubt, Throw it Out." Contamination in the recycle stream effects market value of loads. Thank you for your cooperation!*

**Gilford Solid Waste Center  
Recycling List**

**CORRUGATED CARDBOARD**

**PLASTICS (#1, #2, #5 & #7)**

**STEEL/TIN CANS**

**GLASS**

**ALUMINUM CANS**

**MIXED PAPER**

**PLASTIC #6 POLYSTYRENE**

**Swanzey Recycling Center**

**Recycling Center Construction Project**

Construction of significant improvements began on July 5. During construction, all traffic will be rerouted to the front of the facility with all recycling bins and compactors. Residents can then proceed to the trash compactors or to designated drop off areas.

\*\*\* We expect delays on busy days. Please be patient with staff and fellow residents

When completed, this project will provide residents with a 3-lane covered drive-thru year-round, more sorting windows, and an ADA compliant public restroom at the back of the main building area to around the back side of the facility with all recycling bins as Residents can then proceed to the trash compactors or to designated drop off areas.

This project is being funded by American Rescue Plan Act Funds, money raised through the Recycling Revolving Fund, and money appropriated by voters annually to the Reserve Fund.

Below is an artistic rendition of the completed building.

For more information go to [www.swanzeynh.gov](http://www.swanzeynh.gov) or if you would like to help support or work for the Recycling Center, please contact [jwhipple@swanzeynh.gov](mailto:jwhipple@swanzeynh.gov) or 603-338-0339. We are always accepting applications and could use your help on our dedicated team!

