

Presented By:  
NH Recycles



[NHrecycles.org](http://NHrecycles.org)

# RECYCLING 101

The What, Where, Why & How Behind Recycling in NH

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## About NH Recycles

### Introduction

Partnering to make recycling strong through economic and environmentally sound solutions, NH Recycles is the oldest and largest cooperative-model recycling nonprofit in the US. We support small, rural communities with cooperative marketing, education, and technical assistance.

**90% of NH municipalities  
are NH Recycles Members!**



# Our Impact



We helped our Members  
recycle and manage:

**76.9 Million**  
Pounds of Material



We returned millions in  
revenue to members:

**\$2.97 Million**  
By Selling Recyclables



We helped **avoid** carbon  
dioxide emissions.

**195 Million**  
Pounds of CO<sup>2</sup>



That's like **removing cars**  
from the road for a full year!

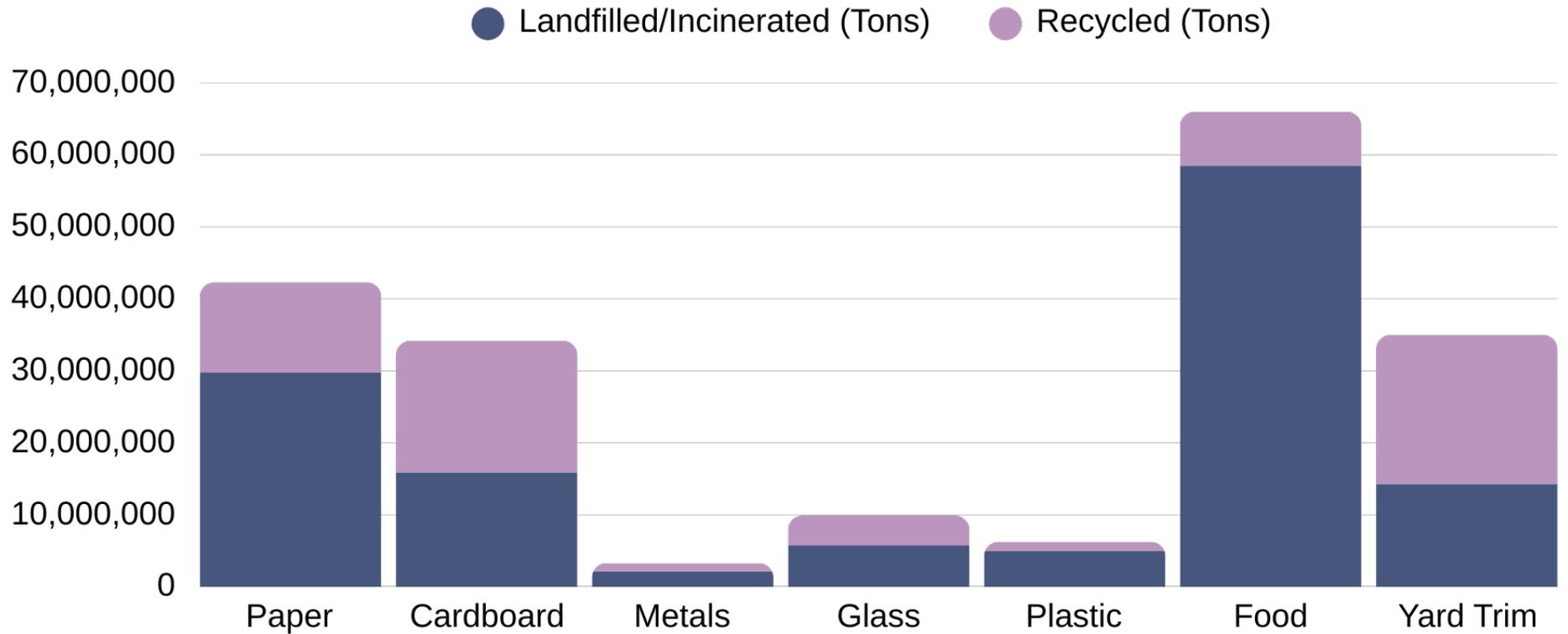
**19,732**  
Passenger Cars



# Let's Start with Trash (an overview)

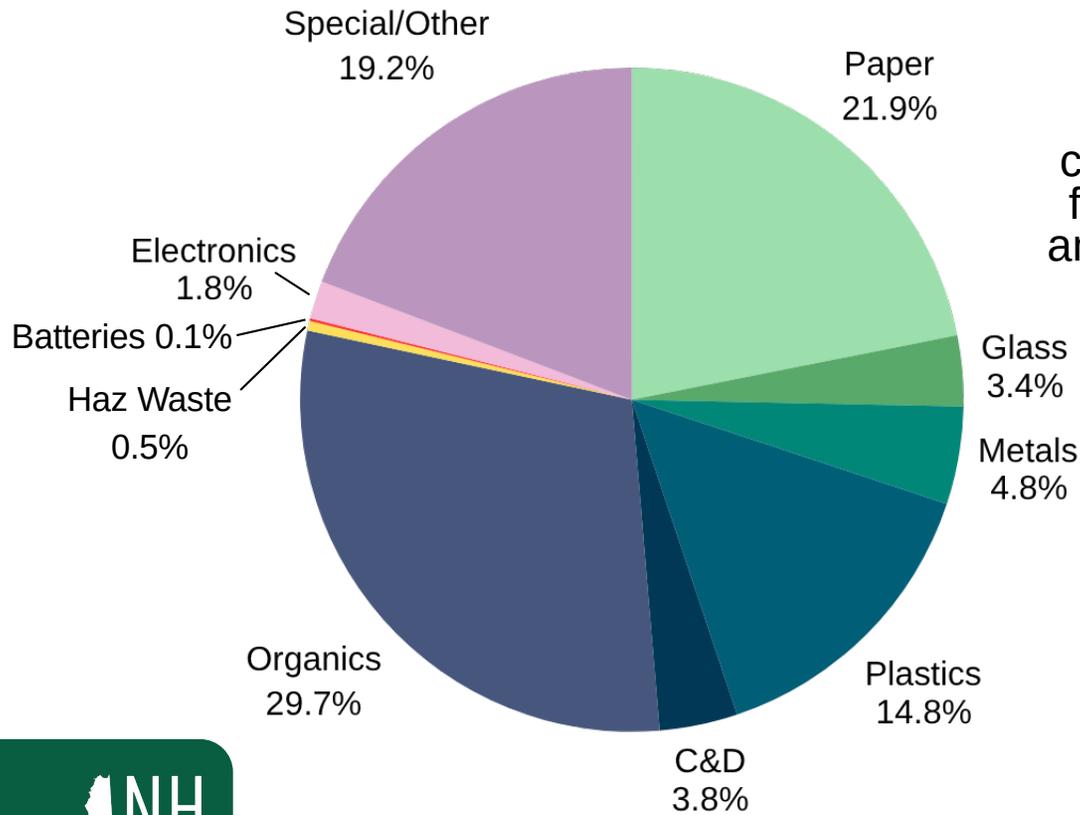


# Nationwide - Where Does Our Trash Go?



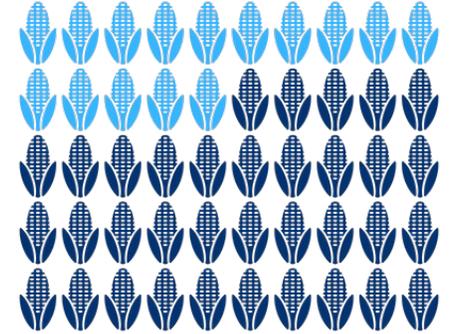
Based on 2024 EPA Assessment of the US Recycling System Report

# In NH – What's in Our Residential Trash?



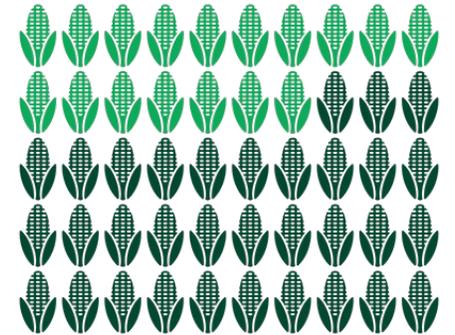
**30%**

could be accepted  
for composting or  
anaerobic digestion



**32%**

can currently be  
recycled in NH!



2024 NH Waste Generation Study Residential MSW Composition by Weight



# NH's Top 7 Trash Contributors

What Makes Up Residential Trash by Weight in New Hampshire

## \$23.6 Million

Revenue lost due to recyclables being landfilled or incinerated, rather than diverted to traditional recycling programs.



1. **Food waste** – unpackaged
2. **Food waste** – packaged
3. **Compostable paper** (not recyclable – think paper towels, Kleenex, paper napkins, etc.)
4. **Pet waste** (GROSS!)
5. **Textiles & leather**
6. **Diapers & sanitary products**
7. **Corrugated cardboard & kraft paper**

2024 NH Waste Generation Study Residential MSW Composition by Weight



# Solid Waste in NH

## New Hampshire's Infrastructure



6

### Landfills

- 3 public (unlimited service area) landfills
- 3 private (limited-service area) landfills

1

### Waste-to-Energy Incinerator

Wheelabrator Concord is a waste-to-energy facility.

!

### Turnkey Landfill in Rochester, NH

NH has the largest landfill in New England, operated by Waste Management.

0

### Materials Recovery Facility

A "MRF" mechanically separates single-stream or zero-sort recyclables

0

### Anaerobic Digester

An "AD" breaks down food waste into fertilizer and biogas composed mostly of methane. Biogas can be burned for energy or processed into natural gas and fuel.

How much waste disposed  
of in **New Hampshire**  
comes from **out of state**?



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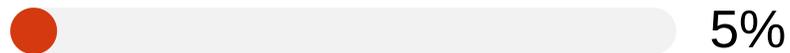


# A Note on Contamination

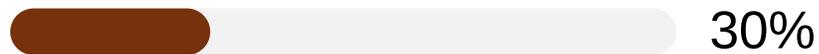
Recycling is a manufacturing process - machinery is used to create new items on a large scale. Just as you wouldn't want contamination in other manufacturing (such as manufacturing of car parts or food containers), contamination in recycling is also problematic and can include non-recyclable items, dirty recyclables, and wishcycling.

## Percent of Contamination Found:

Source Separated Recyclables



Single and Dual Stream Recyclables





# Recycling: The Basics



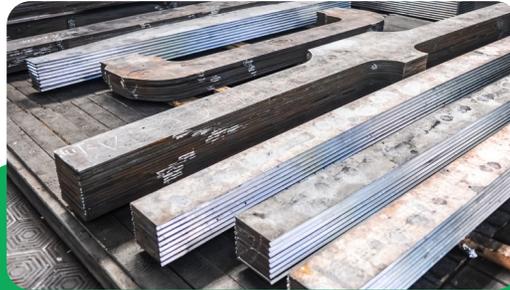
# Recycling Example

## Aluminum Cans



### Saves MONEY

It's cheaper to recycle aluminum versus extracting new aluminum through mining and processing ore.



### Saves ENERGY

Recycling aluminum saves **more than 90%** of the energy needed to create new aluminum.



### Saves Natural RESOURCES

Nearly **75%** of all aluminum produced is still in use today!



# 3 Common Types of Recycling Programs

## I Single Stream

All recyclables go into one bin and are separated after collection.

---

## II Dual Stream

Paper & cardboard and recyclable containers (plastic, metal, glass) are put in separate bins prior to collection.

---

## III Source Separated (multi-stream)

Recyclables are separated by material prior to collection OR at the drop off center (transfer station).



## Source Separated

**PROS:** Materials are generally higher in quality and value because there is less contamination.

**CONS:** Requires more effort by the residents to either leave sorted items at their curb or take them to a drop-off site.

## Single or Dual Stream

**PROS:** Recycling is more convenient because all recyclables go into one or two containers.

**CONS:** The quality of the material can be degraded due to contamination, resulting in materials being sent to landfills.



# Which of the following town departments generate revenue?



Economic Development

Police

Fire Station

Human Services

Recreation

Town Clerk/Tax Collector

Sewer

Transfer Station

Planning & Building

Public Works



# Which of the following town departments generate revenue?



- Economic Development
- (fees)  Police
- Fire Station
- Human Services
- (fees)  Recreation
- (taxes)  Town Clerk/Tax Collector
- (fees)  Sewer
- (sales & fees)  Transfer Station
- (fees)  Planning & Building
- Public Works



Like money?  
Try recycling!



## REVENUE

Earned by **selling high quality recyclable material** to responsible vendors.

## DISPOSAL COSTS

**Decrease** as material is diverted from the solid waste stream and is recycled instead.





JUST BECAUSE IT'S  
RECYCLABLE DOES  
NOT MEAN IT'S  
PROCESSABLE.



# Why doesn't my town recycle EVERYTHING?

You need 3 things to decide:

## I Amount

Economy of Scale: How much of an item do you have to recycle?

---

## II Location

Transportation & Processing: Where is the location of the processing facility in relation to the community?

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## III Cost

Markets & Materials: Are you offering high quality materials (clean, dry, and uncontaminated?) Is the market good?



# What Do Recyclables Become?

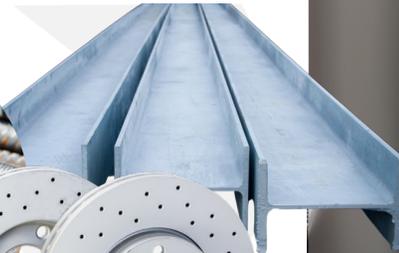


# Paper & Cardboard Recycling

Cardboard, Notebook and Computer Paper



# Tin & Aluminum Can Recycling



# Glass & Plastic Recycling



# PLASTICS RECYCLING

## A QUICK GUIDE TO ♻️ NUMBERS



**YES, RECYCLE!** Items include soda and water bottles, milk and juice jugs, shampoo and cleaning bottles.



**MAYBE, ASK?** Items include yogurt containers, styrofoam packaging, single-use shopping & dry cleaning bags.



**NO, TOSS IT.** Items include dirty food trays, cooking oil containers, vending cups, vinyl and disposable foodware.

# Plastic Recycling

Not all plastics can be recycled



## What About Chasing Arrows?

**This is a CLUE, not a directive!**

This triangle symbol with a number in the middle tells you what type of plastic – or resin – the item is made from; it does **NOT** tell you if the item is recyclable.

# Plastics **Recycling** Realities



I HEARD **STYROFOAM** IS RECYCLABLE,  
WHY CAN'T I PUT IT WITH MY  
PLASTIC RECYCLING?



Made of 95% air, 5% polystyrene,  
styrofoam is **Hard** to process,  
**Expensive** to store and ship, and a  
common **Single-Stream Contaminant**.

WHY CAN'T I RECYCLE **PLASTIC BAGS**  
**OR FILM** AT MY TRANSFER STATION?



Plastic bags and film require a  
different type of processing.  
At a typical recycling plant,  
**this type of plastic can tangle and  
jam the processing equipment.**



# Recycling in New Hampshire



# Waste Disposal Bans in NH

Things you CANNOT throw in a NH landfill or incinerator



## Lithium-ion and Wet-Cell (car) Batteries

Electric bikes & scooters, lawncare equipment and cordless power tools, toys, portable electronics (cell phones, cameras, etc.)



## Electronic Devices

TVs and monitors, computers, laptops, tablets, cell phones, speakers, printers, copiers, VCR/DVD players, keyboards, etc.



## Food Waste for 1+ Ton/week generators

located within 20 miles of a facility with the capacity to manage excess food through donation, composting, digestion, etc.



## Leaf and Yard Waste



## Mercury-Added Products

Button cell batteries, compact florescent lightbulbs, thermometers, old thermostats, tilt switches, florescent lamps, etc.





# NH Recycling Processing

Materials Processed in New Hampshire



## Electronics

Processed in Hudson & Merrimack, NH

Electronics are sorted, dismantled, mechanically separated, and shredded. Valuable materials such copper, glass, and aluminum are then recovered to be reused.



## Cardboard

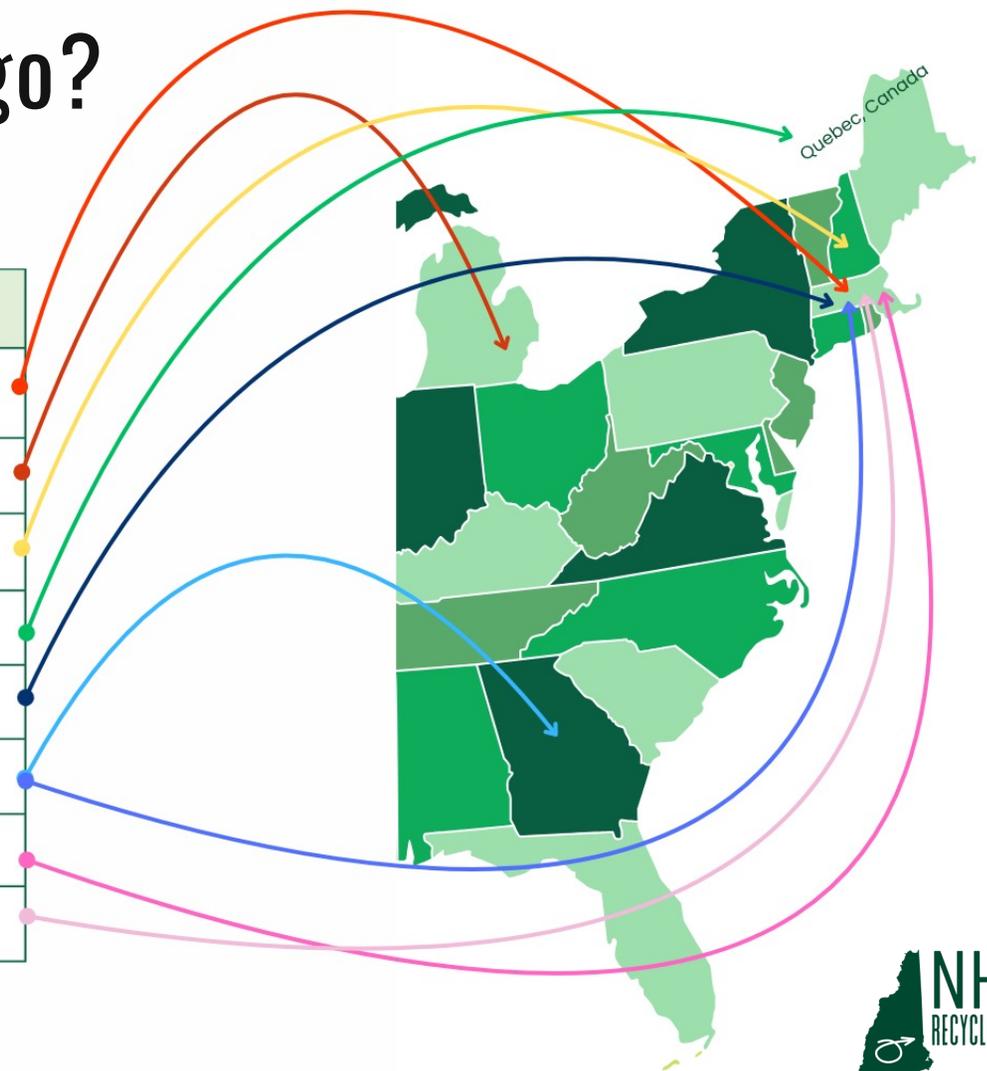
Processed in Claremont, NH

Cardboard is made into large sheets of kraft paper for brown paper grocery bags, lawn bags, and packing material.

# Where does NH recycling go?

Keene, NH example

RECYCLABLE MATERIAL	2023 RECYCLED AMOUNTS	ENVIRONMENTAL IMPACT! Here is just one benefit of recycling materials, rather than manufacturing new products from virgin resources.
ALUMINUM CANS	44,320LBS	 You saved enough energy to run a TV for <b>2,570,560</b> hours!
PLASTICS	263,486 LBS	 You saved <b>13,845</b> gallons of gasoline!
ELECTRONICS	72,551 LBS	 You saved enough energy to power <b>2,040</b> homes for 1 day!
GLASS	476,540 LBS	 You saved about <b>2,853</b> trash bags from ending up in a landfill!
SCRAP METAL	591,145 LBS	 You saved <b>880,806</b> pounds of iron ore!
PAPER &/OR CARDBOARD	4,884,894 LBS	 You saved <b>41,522</b> trees!
STEEL CANS	90,740 LBS	 You saved enough energy to swap <b>3,147</b> incandescent lightbulbs for LEDs!
TIRES	114,350 LBS	 You saved <b>2,721</b> gallons of oil!

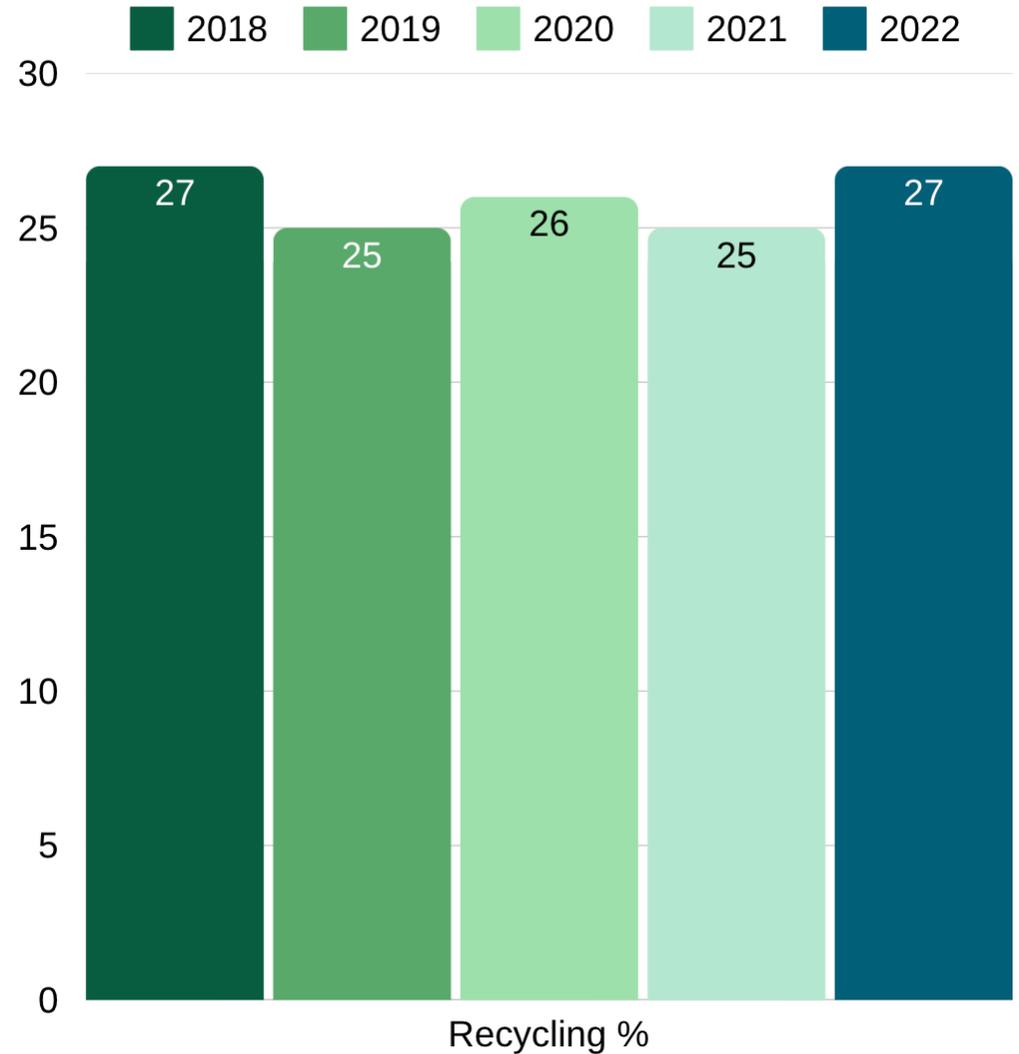


# What is the New Hampshire recycling rate?

Based on NHDES Biennial Solid Waste Reports

**26%**

(5-year average)



# Recycling Realities in NH



## Solid Waste Disposal is **Expensive**

New England has the **highest cost for trash disposal** in the entire country.



## Lack of **Infrastructure**

We lack infrastructure such as a MRF or anaerobic digester for solid waste diversion.



## Minimal (but growing) **State Support**

We lack the grants, technical assistance, and state-level policies that support recycling and solid waste management.



## **NH Solid Waste Working Group**

Formed in October 2022, SWWG looks at policy and regulatory changes to solid waste management in NH.



# Recycling Next Steps





# Possible State Solutions

Options that have worked in other states



## **Bottle Bill**

Deposit-refund system incentivizes bottle recycling through a minimum refundable deposit



## **Extended Producer Responsibility (EPR)**

An environmental policy approach that shifts the responsibility for the full lifecycle of a product upstream toward the producer and away from municipalities.



## **Waste Bans**

Enacted on the state level (such as the NH Yard Waste Ban), waste bans restrict the type of items that can be disposed of within the state.



# Town Tools to Improve Recycling

**Pay As You Throw**

**Full Cost Accounting**

**Floor or Truck Scale**

**Construction &  
Demolition Debris  
Densification**

# Pay As You Throw (PAYT)

**PAYT is a waste reduction model where residents pay for the trash they produce.**

PAYT is also known as "unit-based pricing."  
**Customers (residents or visitors) pay for waste they generate**, versus a "flat rate" program where everyone pays the same amount no matter how much - or how little - waste they create.

*PAYT has been shown to decrease MSW and increase recycling, as residents do not have to pay to recycle.*

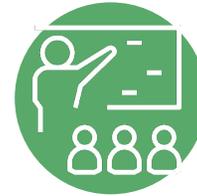


# Full Cost Accounting

The **TRUE COST** of trash & recycling



Full Cost Accounting can help towns:



**EDUCATE**  
their residents



Make **DATA-DRIVEN**  
decisions and program  
changes



Used for **FINANCIAL PLANNING**, fee & rate setting, and vendor negotiations.

# The Benefit of a Scale

A scale is a necessary tool all transfer stations and recycling centers should consider.

Scales streamline weight-based pricing and provide towns, taxpayers, residents, and customers a **fair and accurate** way to charge for disposal of everything from MSW and common recyclables, to trickier items such as shingles and electronics.

We recommend all transfer stations and recycling centers have a floor scale.



**FLOOR SCALE**



**TRUCK SCALE**





# C&D Densification

Reduce bulk, Increase weight



## Backhoe

Often the easiest - using the town's backhoe to crush the C&D, can get up to 20% more weight in!



## Auger

Little more expensive and limitations on type of waste it can handle but can increase weight up to 40%.



## Precrusher

Pricier than an auger, but saves about 40% over an open top, can handle large items more easily.

# Individual Action



Steps you can start taking TODAY (along with consistent recycling)



**REDUCE!  
REUSE!  
RECYCLE!**

Be Part of the Solution



**BUY SMART**

At Home and at Work

Look for the phrase, "post consumer recycled material."



**DIVERT**

Food Waste OUT

Find an alternative - compost at home, with a commercial composter, or farm.



**SIGN UP**

For Full of Scrap

NH Recycles' bi-weekly newsletter with recycling education, updates & events!

# When does recycling happen?

Hint: Probably not when you think!

Recycling doesn't happen when items are tossed in the recycling bin or dropped off at the transfer station. **Recycling happens when materials are turned back into products that people use.**



## # RECYCLING BASICS

Time to CLOSE the recycling loop  
**IF YOU ARE NOT BUYING RECYCLED, THEN YOU AREN'T FULLY RECYCLING.**



(Before you buy, look for the words, "post-consumer recycled content")

# Collective Action

Systemic change requires collective action!



## ADVOCATE

### For Legislation & Infrastructure

**FOLLOW** State and Local legislation and sign in or testify on bills and local matters related to solid waste and recycling.

**SUPPORT** increased recycling and waste diversion infrastructure such as composting or expanded recycling programs in your town.



## ORGANIZE

### At Work in Town

**JOIN** your city or town's recycling or waste reduction committee (or start a committee if there isn't one!)

**CREATE** a "Green Team" at work to tackle waste issues at work, including recycling, food waste diversion, waste reduction, and energy consumption.

# Don't Forget - Final Recycling **Takeaways**



Did you know?

**WISH-CYCLING IS  
JUST TRASH WITH  
GOOD THOUGHTS.**



Did you know?

**PREVENT  
RECYCLING  
CONTAMINATION:  
WHEN IN DOUBT,  
THROW IT OUT.**



# Connect With Us

## Contact Information



(603) 736-4401



@NHrecycles



info@nhrecycles.org



NHrecycles.org



2101 Dover Road  
Epsom, NH 03234

