



# State of Recycling

Cupertino Rotary Club - Climate Action Committee  
October 2, 2024

# About Recology



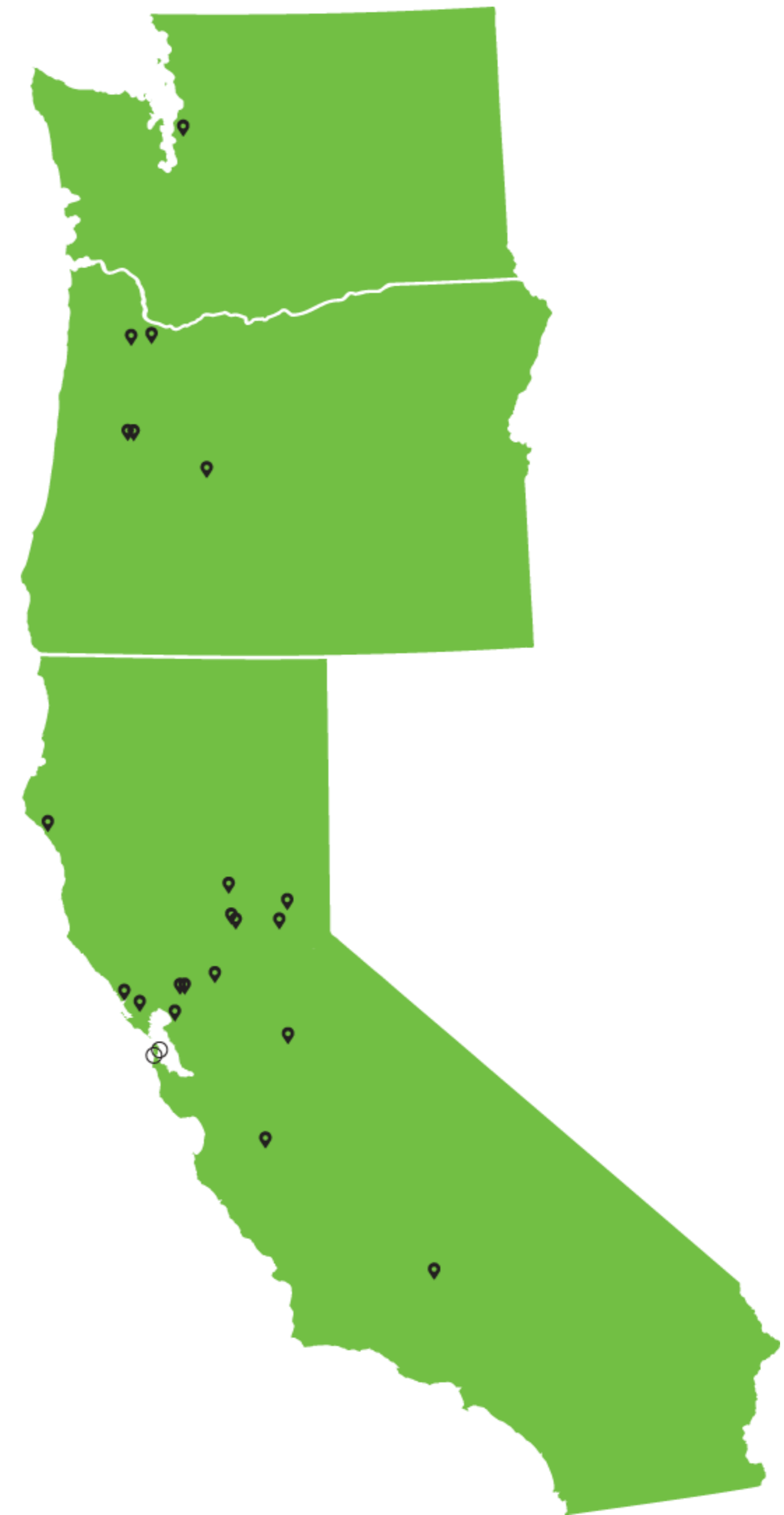
# Who We Are

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**100%**  
employee-owned

**3.8k**  
employee-owners

**1M+**  
customers served

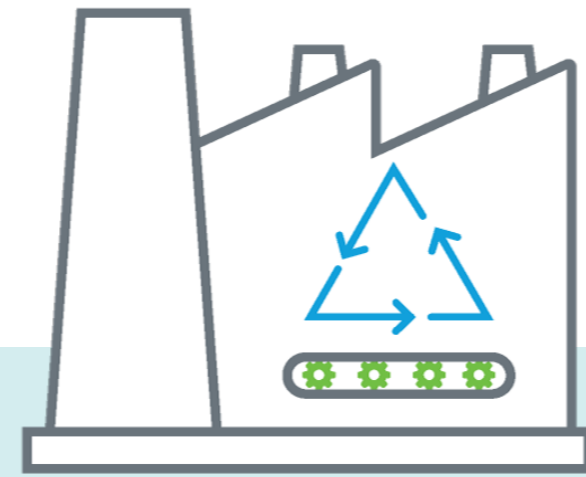


# Our Business



## Collection

- Franchise Agreements with municipalities in 137 communities across CA, OR, & WA
- Curbside collection of customers material



## Processing

- 12 Material Recovery Facilities (MRFs)
- 8 Compost Facilities
- Landfills as a last resort



## Commodity Sales

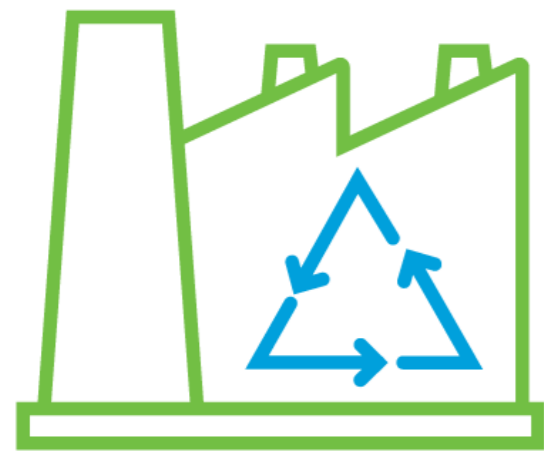
- 500,000 tons of recyclables annually
- 250,000 tons of compost annually



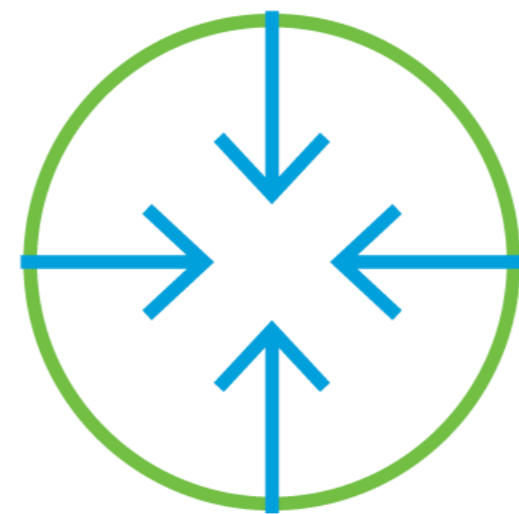
## Community Outreach

- Waste Zero education and outreach
- Community partnerships

# Recology: A World Without Waste™



Resource Recovery



Source Reduction



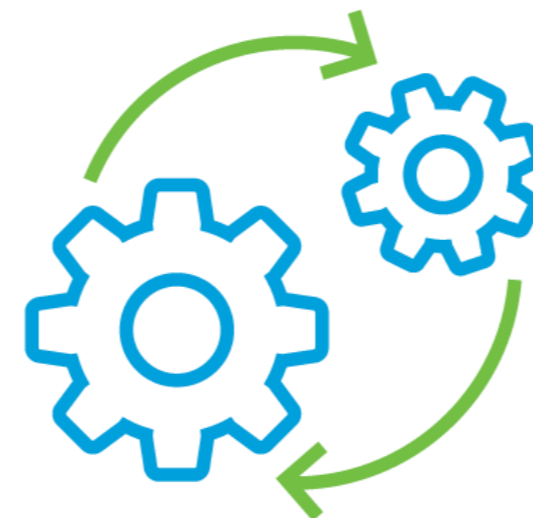
Community Partnerships



Waste Zero



Recology Stores



Producer Responsibility



Beyond Waste

# Recycling in Cupertino

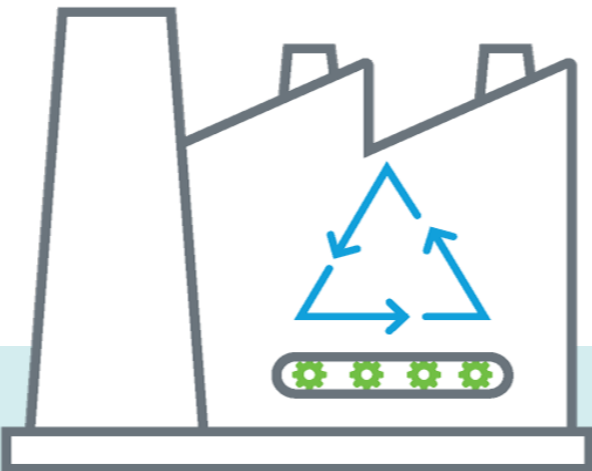


# Cupertino Recycling Program



## Collection

Recology South Bay



## Processing

GreenWaste San Jose



## Commodity Sales

GreenWaste San Jose

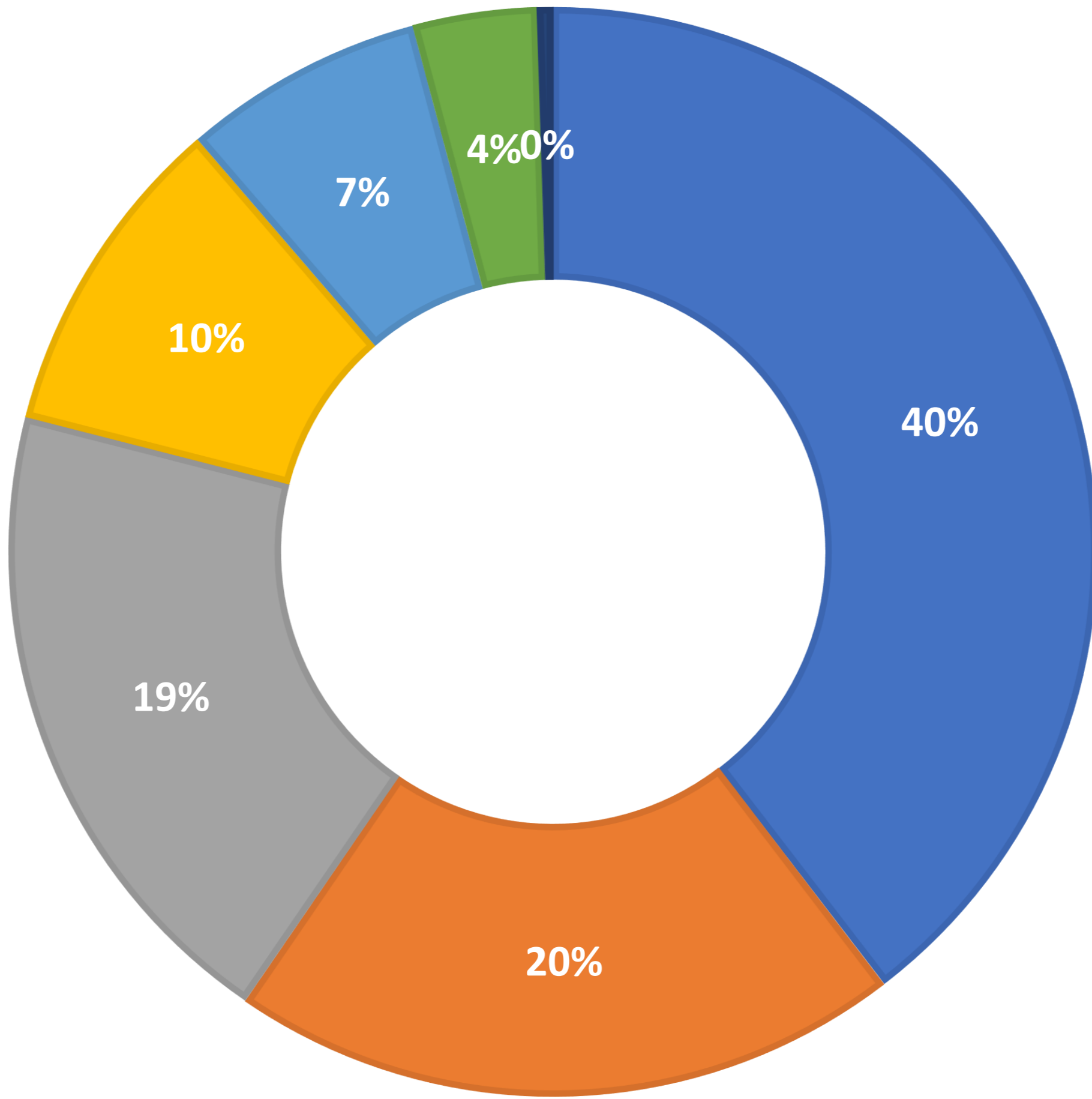


## Community Outreach

Recology South Bay

# Cupertino Recycling Audit

■ Cardboard (OCC) ■ MSW ■ Paper (Mixed) ■ Glass ■ Plastic ■ Metal ■ Other



~80% recycled  
~20% landfilled

# State of Recycling

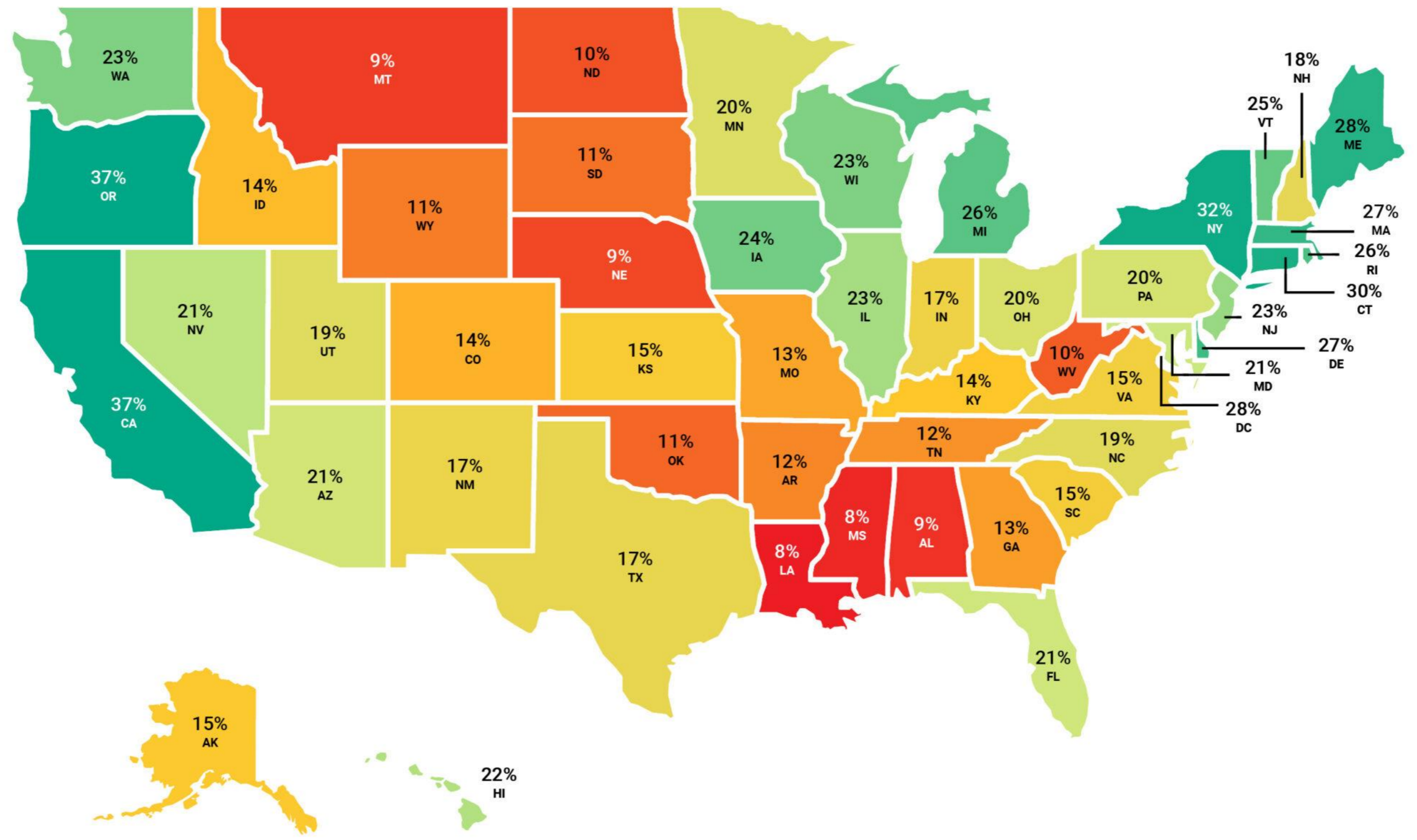


# Common Recycling Questions

- 1 Does recycling actually work?
- 2 How much of what makes it into the recycling bin actually gets recycled?
- 3 Why do some items have a “recycling” symbol but aren’t recyclable?
- 4 Why can’t certain items be recycled?
- 5 What happens to items that are recycled?
- 6 How can we help make the system better?

1 Does recycling actually work?

# State-by-State Residential Recycling Rates\*



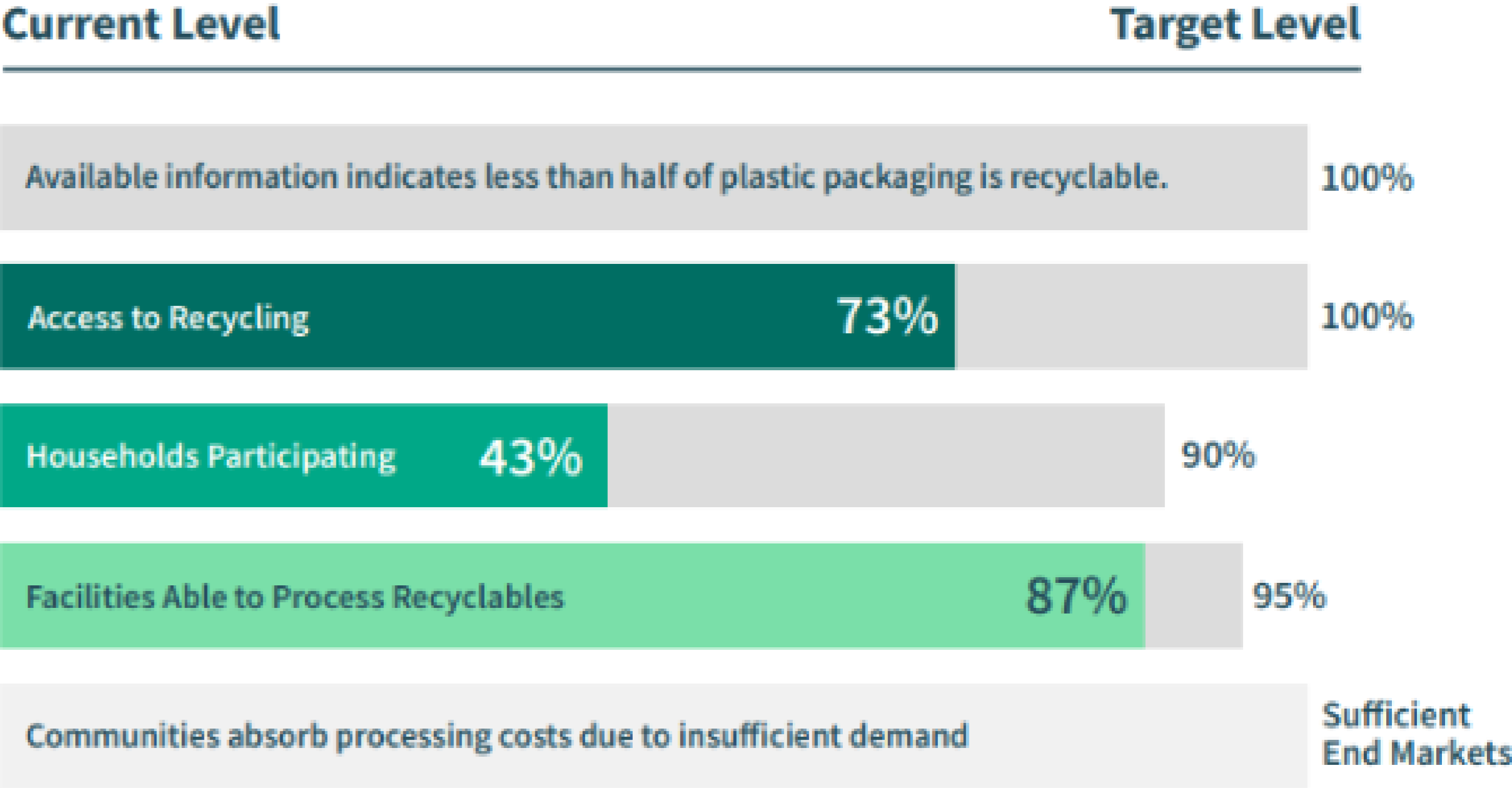
\*includes material captured through state deposit return systems

**For the U.S. residential recycling system to function effectively, five requirements must be met:**



1. 100% of packaging needs to be recyclable.
2. 100% of households need access to recycling from their home.
3. Residents need to fully engage in recycling.
4. Recycling facilities need to effectively process 95% of the material.
5. Recycling facilities need sufficient end markets.

For the U.S. residential recycling system to function effectively, five requirements must be met:

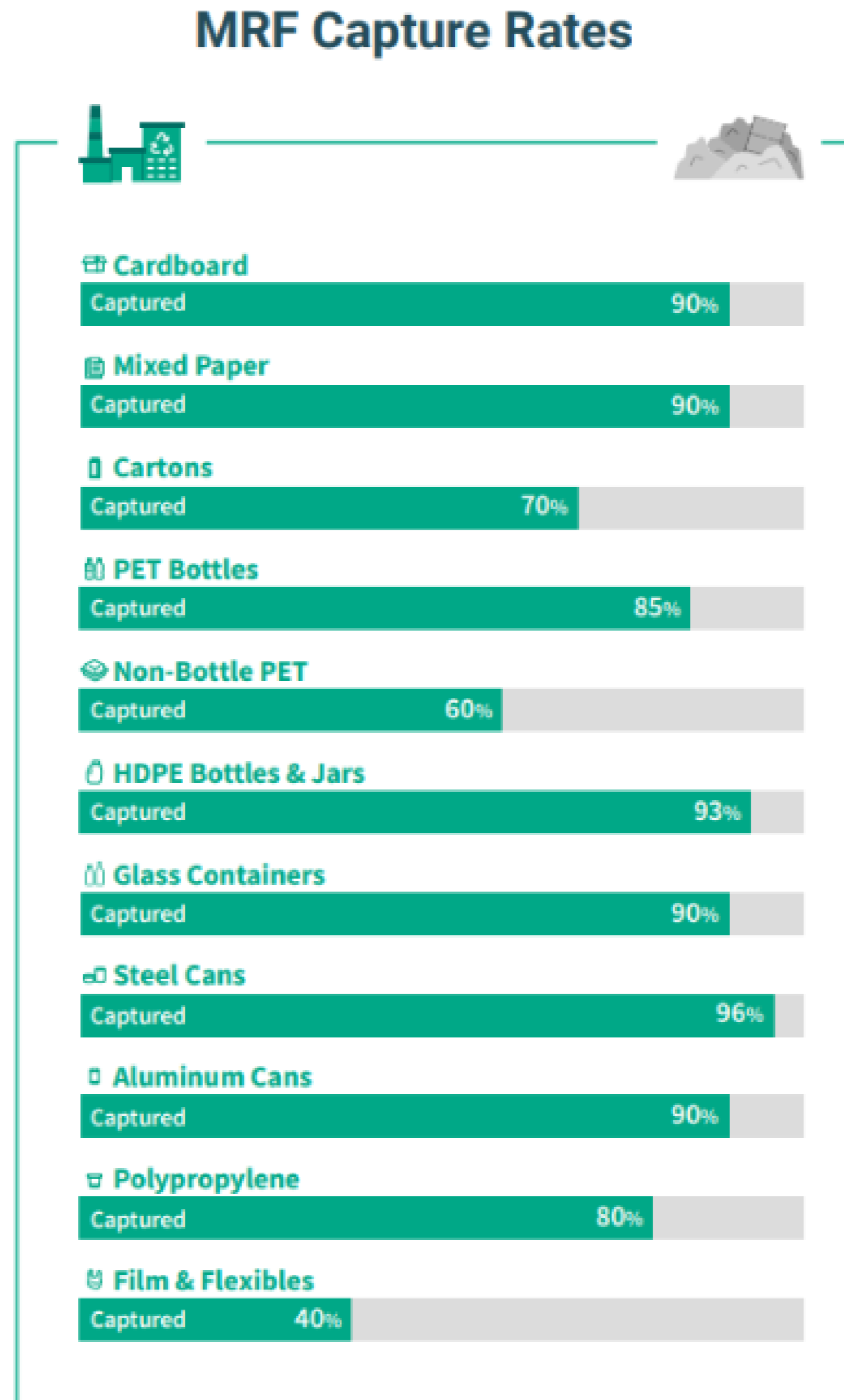


Source: The Recycling Partnership - State of Recycling

2

How much of what makes it into the recycling bin actually gets recycled?

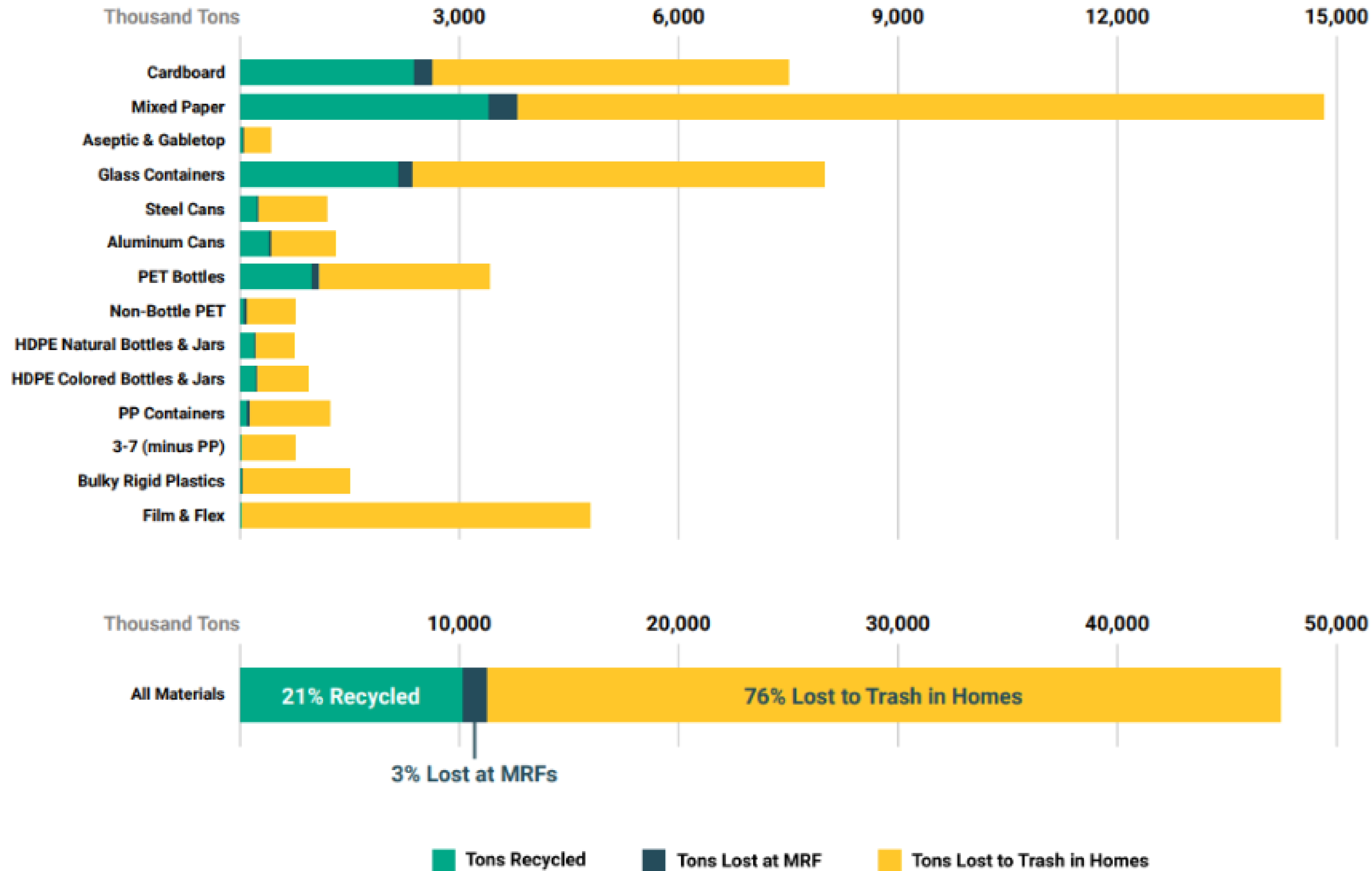
MRFs sort and process approximately **87%** of the *recyclable* materials they receive.



Many non-recyclable materials get put in the blue bin, creating challenges.

# Fate of Material by Major Material Category\*

(in Tons Per Year)



Low recycling rates are primarily due to loss of recyclables in homes (i.e. sent to landfill instead of recycled).

3

Why do some items have a “recycling” symbol but aren’t recyclable?

# Accurate Recycling Labels

Many Californians rely on products' chasing arrows symbol to tell if it's recyclable. Until 2021, California did not set specific criteria for the using chasing arrows recycling logo.



how2recycle.info

**Widely Recyclable**

[Learn More](#)



how2recycle.info

**Check Locally**

[Learn More](#)

\*Not recycled in all communities



how2recycle.info

**Store Drop-off**

[Learn More](#)



how2recycle.info

**Not Yet Recyclable**

[Learn More](#)

# SB 343: Truth in Labeling



1

Established Statewide  
Recyclability Criteria

2

CalRecycle Collects  
Data from Material  
Characterization Study

3

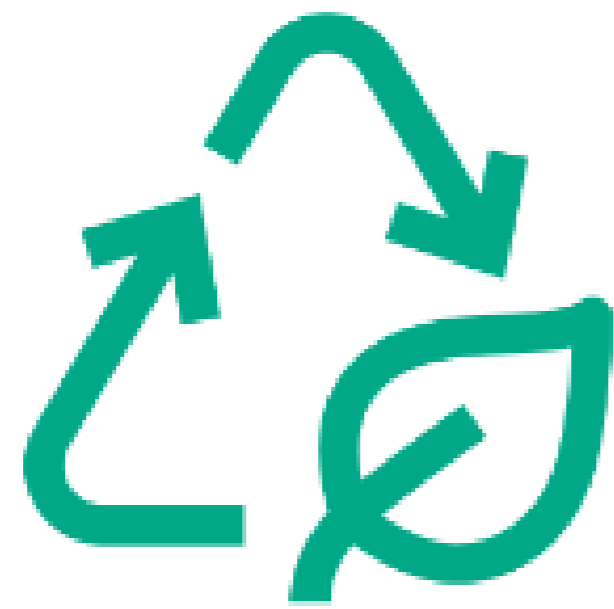
Manufacturers use Criteria  
to Determine Whether a  
Product is Considered  
Recyclable

4

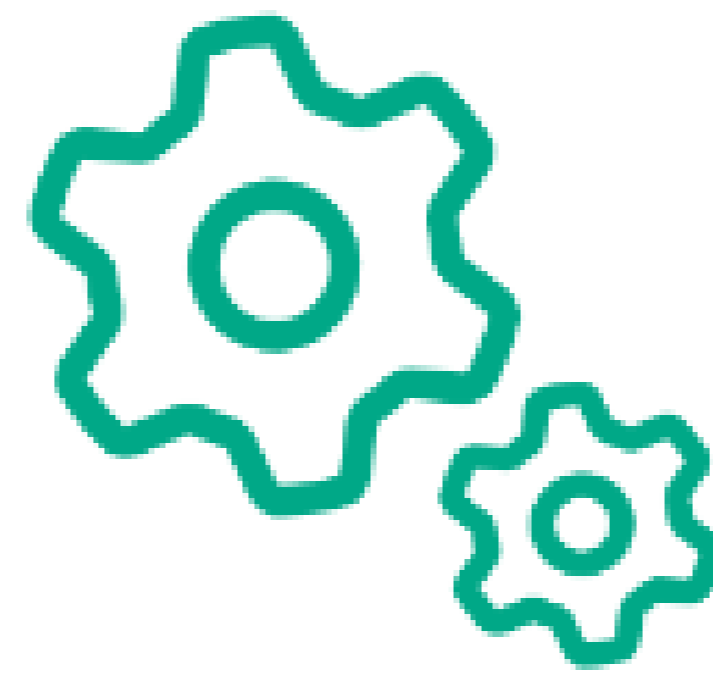
Law Prohibits Selling  
Products that Have  
Misleading Recycling Labels

4 Why can't certain items be recycled?

# Key Elements for Recyclability



End Markets



Infrastructure



Economics

# Plastic Types



PET



Water bottles,  
condiment bottles

VERY RECYCLABLE



HDPE



Milk jugs,  
shampoo bottles

VERY RECYCLABLE



PVC



Cleaning products,  
plastic pipes

RARELY RECYCLABLE



LDPE



Plastic film,  
plastic bags

RARELY RECYCLABLE



PP



Yogurt cups,  
sour cream tubs

OFTEN RECYCLABLE



PS



Takeout containers,  
coffee cups

RARELY RECYCLABLE



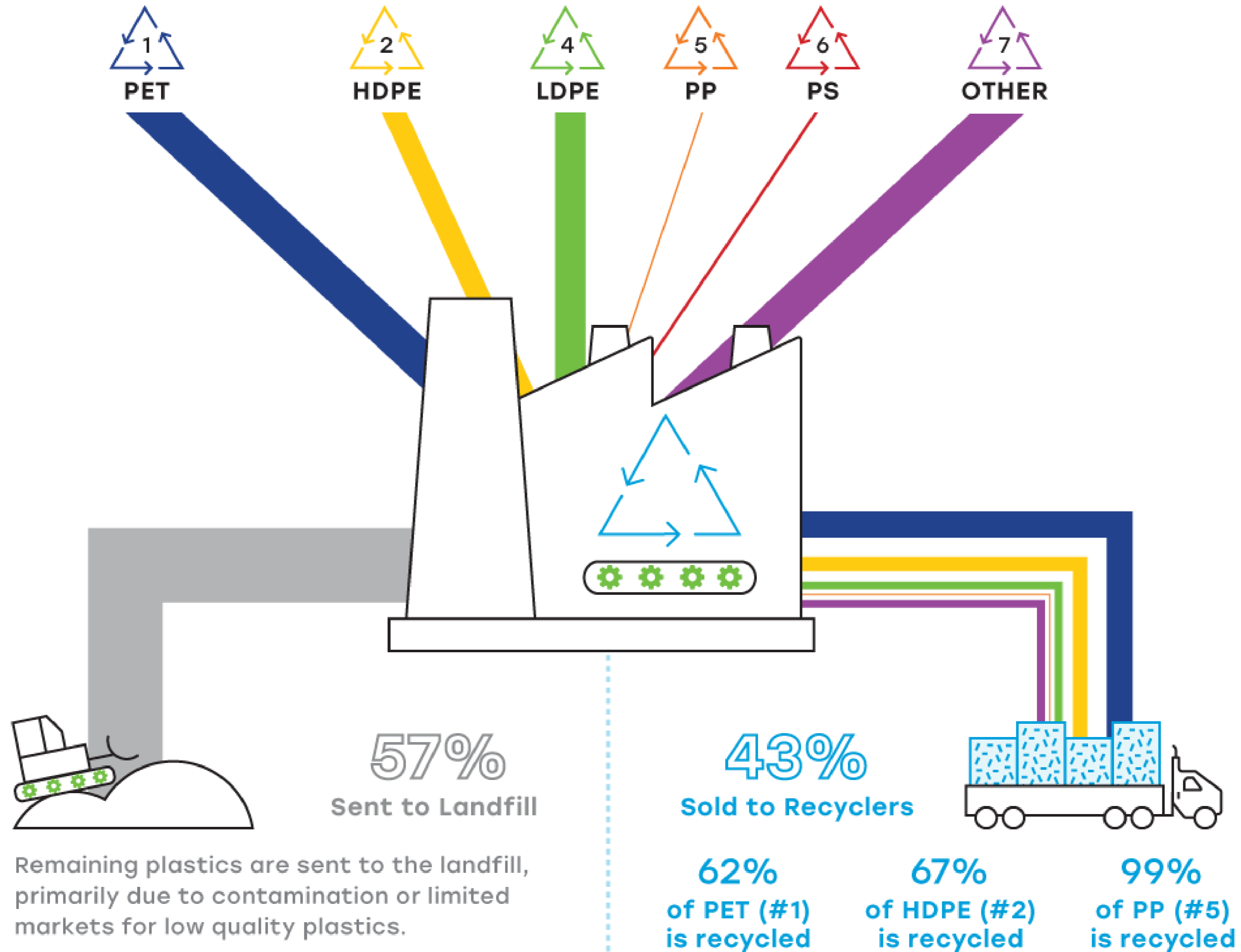
OTHER



All other  
plastics

RARELY RECYCLABLE

# Plastics Recovery in San Francisco



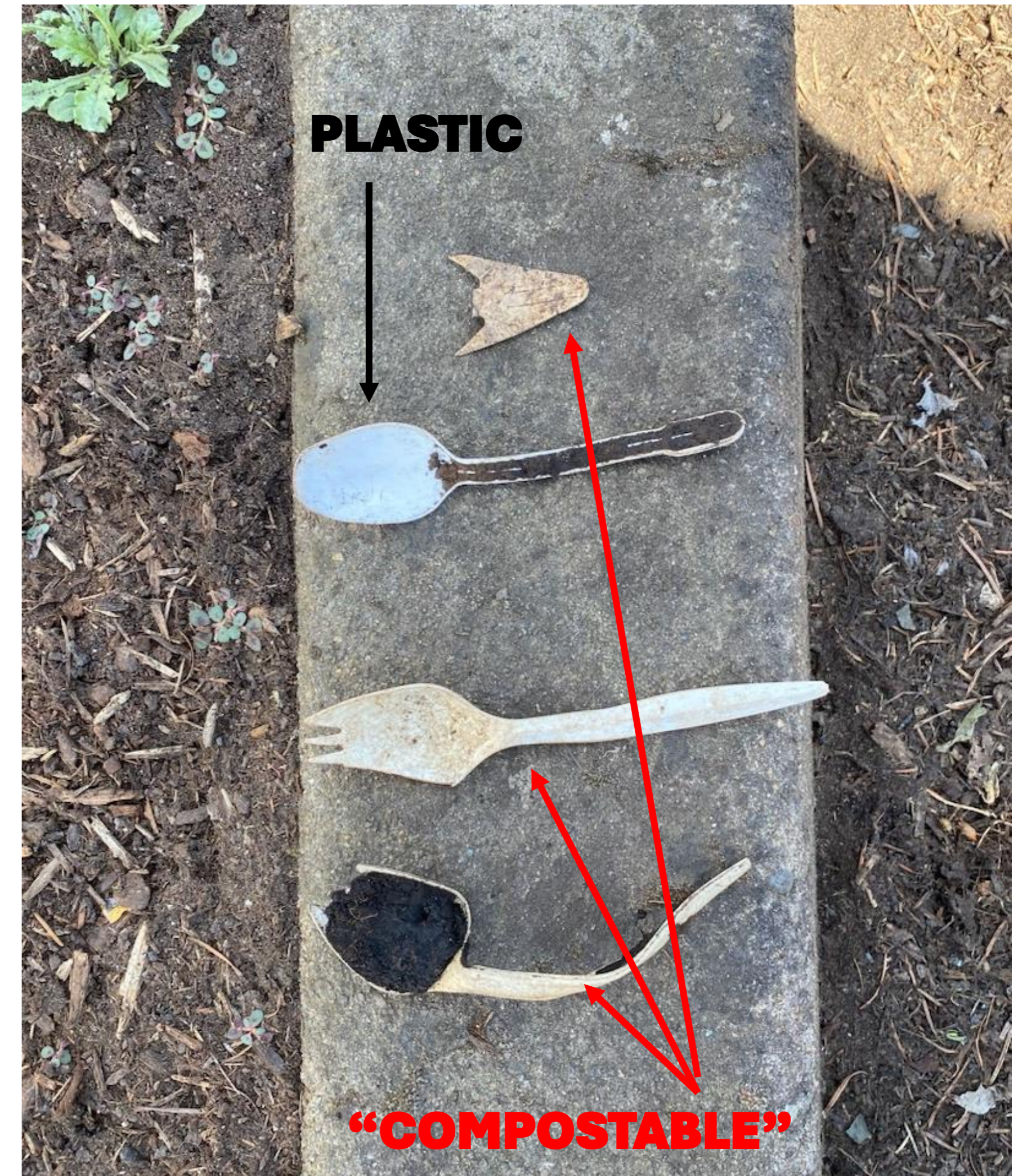
# What about “compostable” plastics?

## ASTM D6400

- Originally drafted in 1999
- 12 weeks of testing in a controlled environment
- 90% disintegration after passing through a 2 mm sieve
- 90% of the organic carbon converted to carbon dioxide within 90-180 days

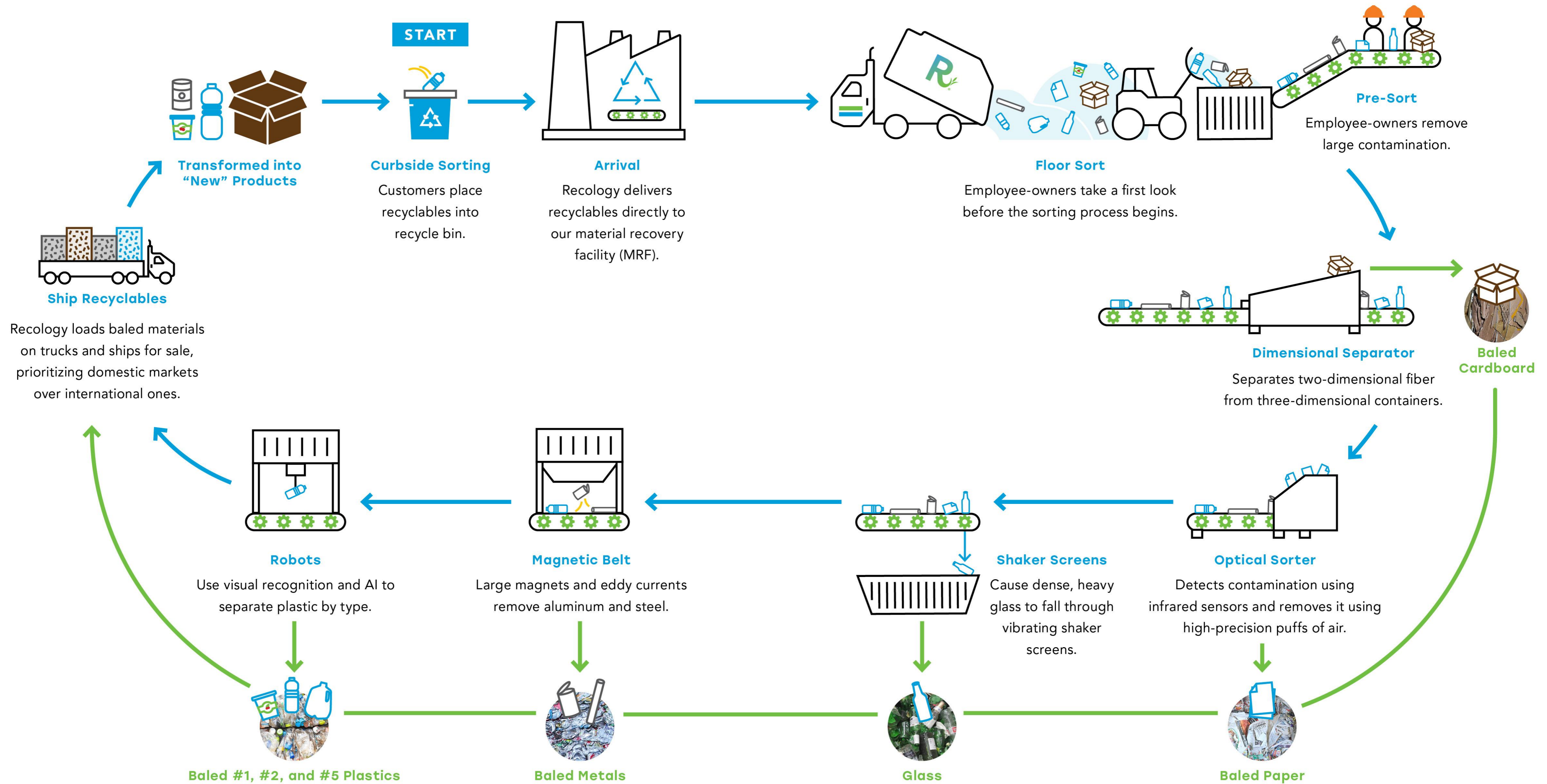
## Operational Reality

- 90% disintegration leaves potential for plastic contamination and microplastics
- Processing time at most facilities = 60 days



5

What happens to items that are recycled?



*This is not representative of every step of the recycling sorting process. Each MRF is uniquely designed for its recycling stream and may have a different layout, equipment, and material flow. Residual materials are sent to the landfill, primarily due to contamination or limited markets for low quality recyclables.*



6

How can we help make the system better?

# California SB 54



25% of Plastic Packaging Cut by 2032



65% of Single-Use Packaging Recycled by 2032

(CalRecycle)

SB 54 is a landmark packaging law that shifts the plastic pollution burden from consumers to the plastics industry by raising \$5 billion from industry members over 10 years.

(CalRecycle)

The legislation requires producers play a strategic role in building a truly circular recycling economy by ensuring that products are:



Manufactured, marketed, and delivered using recycled content



Designed to be recycled



Collected, processed, and recycled into new products

(CalRecycle)



# PROJECT FOODWARE

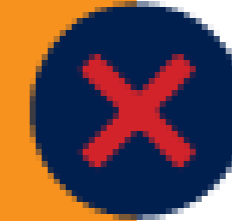
For a Plastic-Free Future

**NOT ALLOWED**

## NO SINGLE-USE PLASTIC FOODWARE

Traditional, compostable, or recyclable plastic is not allowed. This includes but is not limited to:

- cups
- plates
- bowls
- trays
- take-out containers
- single-use plastic carry-out bags
- stir sticks
- straws
- utensils



**ALLOWED**

## REUSABLES FOR DINE-IN

- Reusable foodware is required.
- Condiments must be served in reusable containers, no individual packets are allowed.
- Single-use compostable straws, paper napkins, foil liners, and paper trays are allowed.

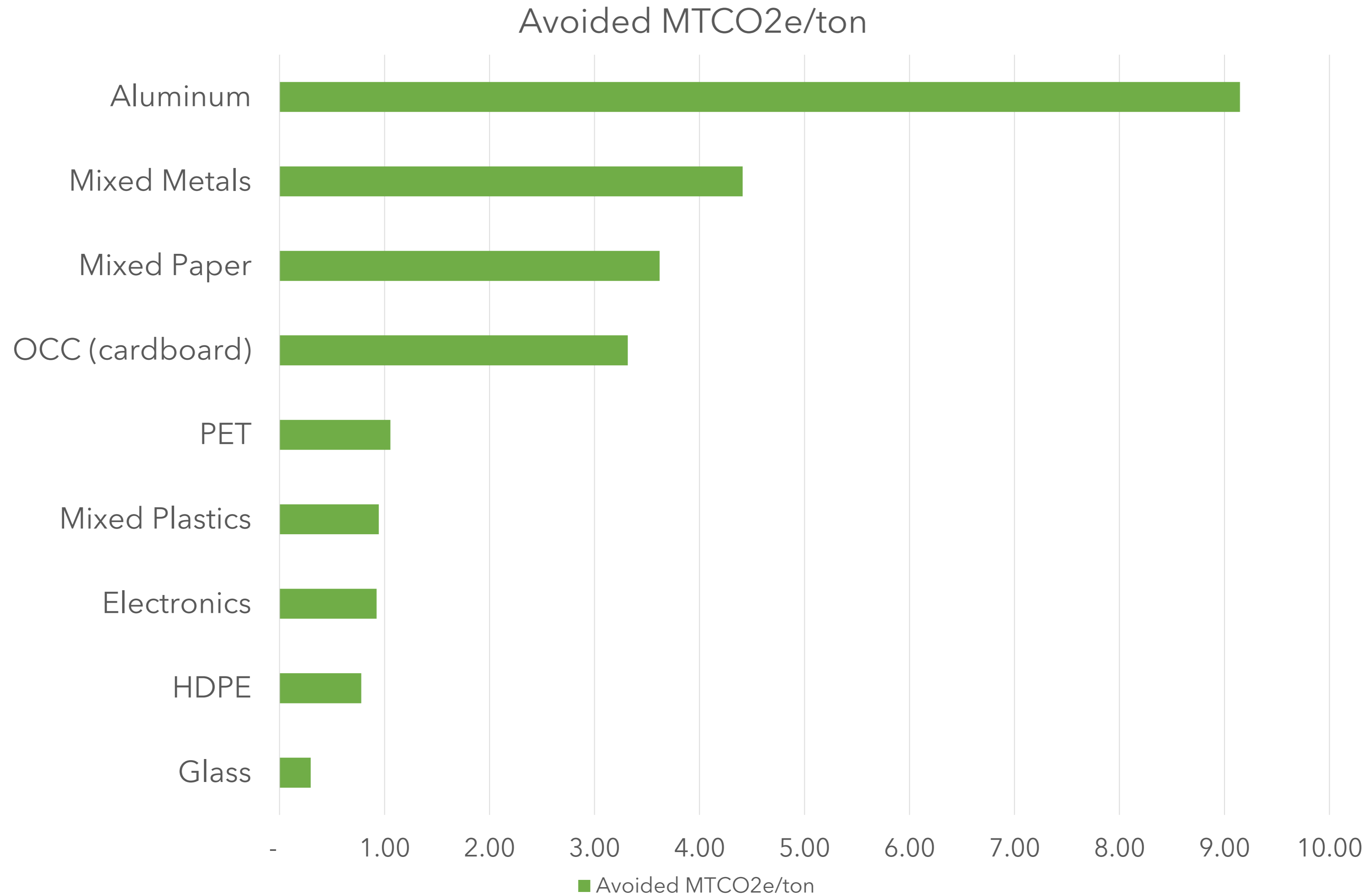


## COMPOSTABLES FOR TAKE-OUT

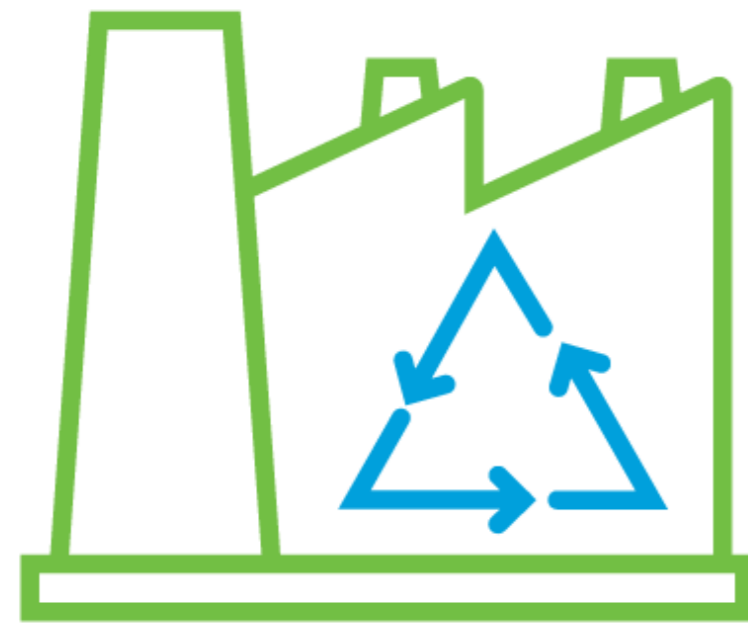
- Only natural **fiber-based** compostable materials allowed (paper, wood, sugar-cane, bamboo, etc)
- Aluminum food containers and foil are allowed.
- Fiber-based compostable foodware must be certified by the Biodegradable Products Institute (BPI) and can be lined with PLA plastic liner or coating.



# Emission Reductions Through Recycling

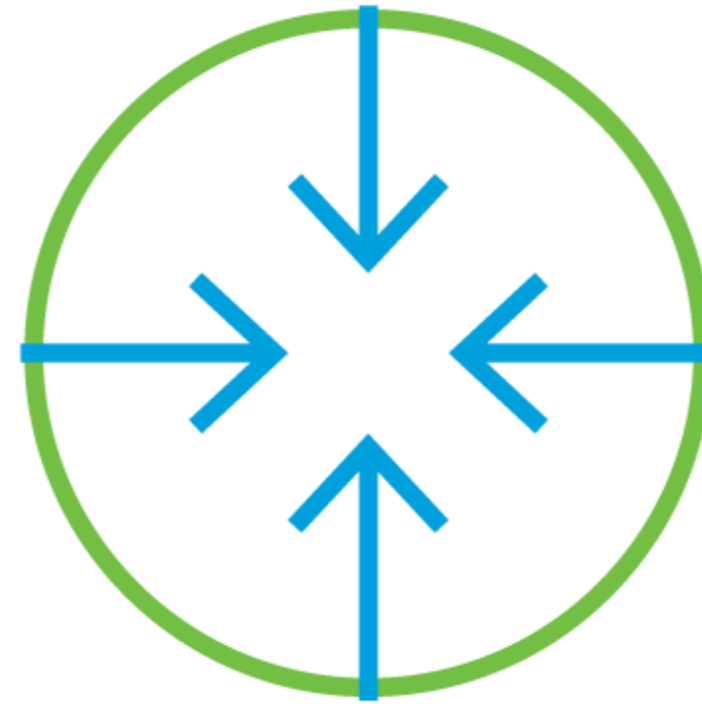


# What else can we do?



## **Recycle**

Avoid wish-cycling  
- check with your  
local hauler.



## **Reduce/Reuse**

Reduce consumption.  
Prioritize reuse.  
Only buy items that  
are recyclable.



## **Educate**

Friends, family,  
community members.  
Most people don't know  
what resources are  
available.



Thank you!

Q & A



# Appendix

# Ocean Conservancy's RECYCLING DECODER

Not all plastics are recycled equally. Before you toss it, check the number on the bottom—it tells you the type of plastic, the key to recyclability.

## ● Recyclable through most curbside programs



- water/soda bottles
- peanut butter jars
- microwavable trays



- milk jugs
- detergent containers
- shampoo bottles



- yogurt tubs
- bottle caps
- ketchup bottles



## ● Recyclable through outside programs. Grocery stores will often accept these items.



- plastic bags



- dry cleaning bags
- newspaper bags
- shrink wrap



**Tip:** Keep plastic bags in your reusable shopping bags so you'll remember both on your trip to the store.



Always remember to rinse out your recyclables. Removing food residue will ensure everything you throw in the bin gets another life—and clean bottles keep your bin smelling fresh!

## ● Difficult to recycle



- berry containers
- deli meat packaging
- PVC pipes



- plastic cutlery
- plastic foam takeout boxes/cups



Other, including bio-plastics. Bioplastics are made from renewable materials, but many recycling systems are unable to process them at this time.

Note: Recycling systems vary by location. This guide is based on research and best practices—for specific recommendations, consult your local curbside program guidelines. Searching "[your city] + recycling" online should get you the information you need. Visit [ocean.ly/recycleguide](http://ocean.ly/recycleguide) for more.

# PLASTICS WASTE

from Cupertino

Results from 2018 -19 Waste Studies



Single Family Residential

19,882 tons of all waste

6.6% 1,325 tons of plastic



Apartments & Complexes

3,661 tons of all waste

13.4% 490 tons of plastic



Businesses & Commercial

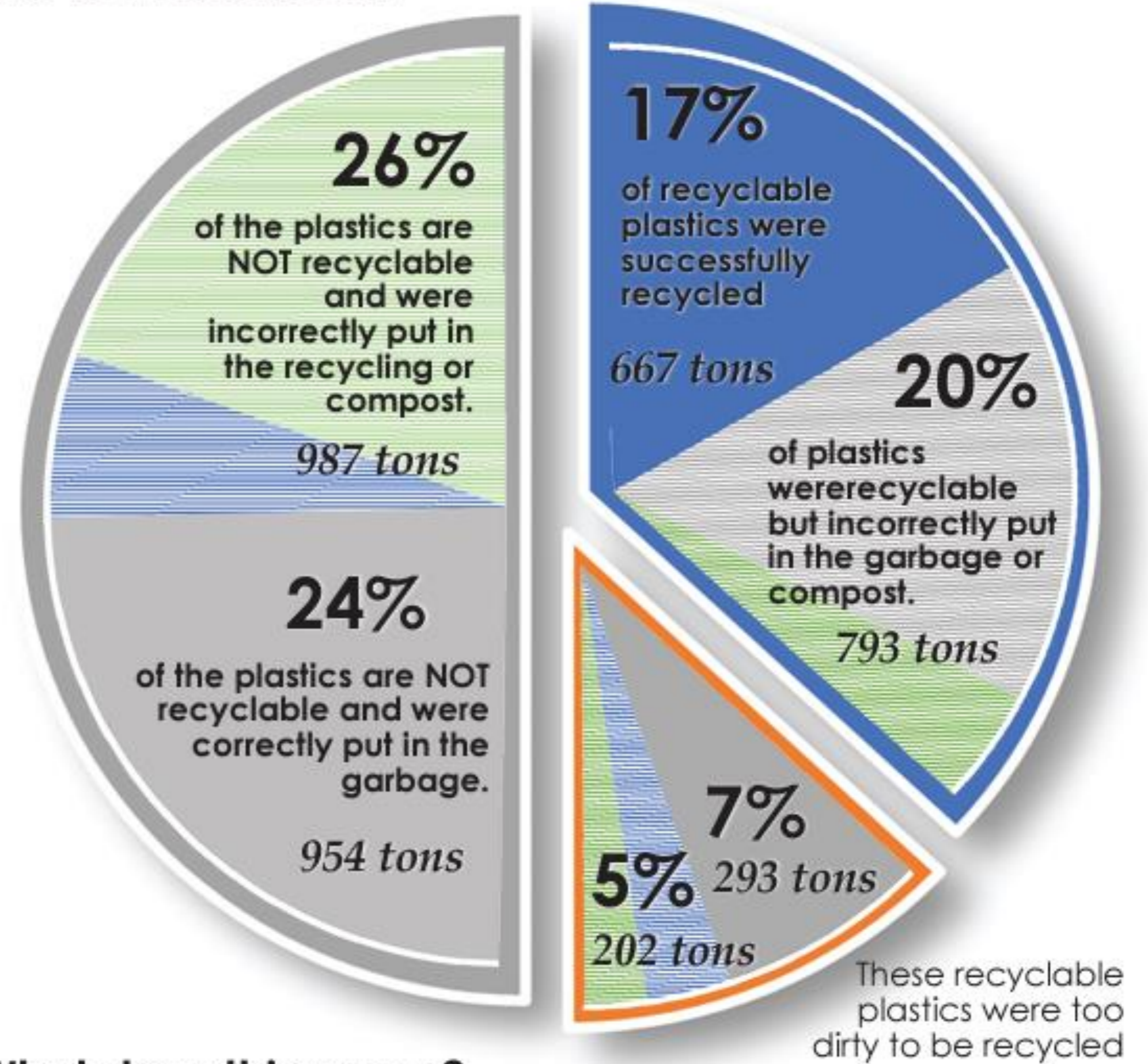
14,944 tons of all waste

14% 2,094 tons of plastic

**3,909 tons** of plastic waste annually



## How is it sorted?



### What does this mean?

- Half of the plastic items thrown away in Cupertino are NOT recyclable.
- 26% of plastics are incorrectly "wishcycled" into the blue or green carts.
- 33% of the plastics could be recycled if clean and sorted correctly.

**Want to find ways to reduce plastic?**

Visit [Cupertino.org/NoWaste](http://Cupertino.org/NoWaste)

