

# Talkin' Trash at the Sustainability Exchange



March 14, 2019

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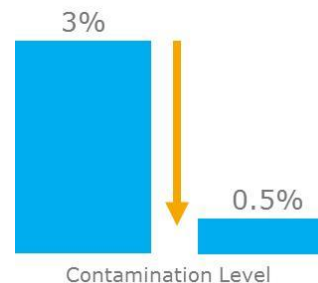
# Recycling Changes

# Recap - China Sword

For decades, China has been the largest importer of the world's recycled commodity, and the U.S. was 40% of the inbound stream.

In 2017, China announced efforts to clean up the country, which included dramatic changes for acceptance criteria of imported recyclables.

- A significant reduction in acceptable contamination levels (From ~3% to 0.5%) in any recovered paper and plastic grades.



- Additionally, China banned all mixed paper from import, regardless of contamination levels. (20% of historical stream).



Reductions took effect in March 2018, which drove costs and changes at most recycling facilities in the country to meet new standards

# Recap - Trends Strain Existing Model

## Trends



2000

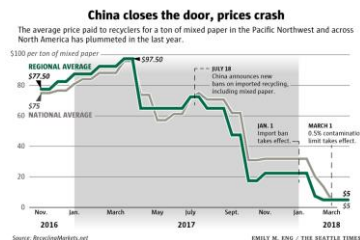
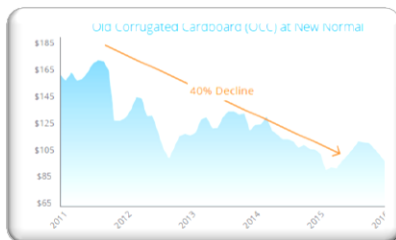


48,000 plastic bottles = 1 ton<sup>1</sup>

2015



92,000 plastic bottles = 1 ton<sup>1</sup>



## Implications

Some material changing faster than capital investment cycles

*18M tons in 2000 → ~2M in 2015*

Some material has limited end markets  
*HDPE (Good) → off-spec PET (Limited)*

Material Light-weighting skews current success metrics

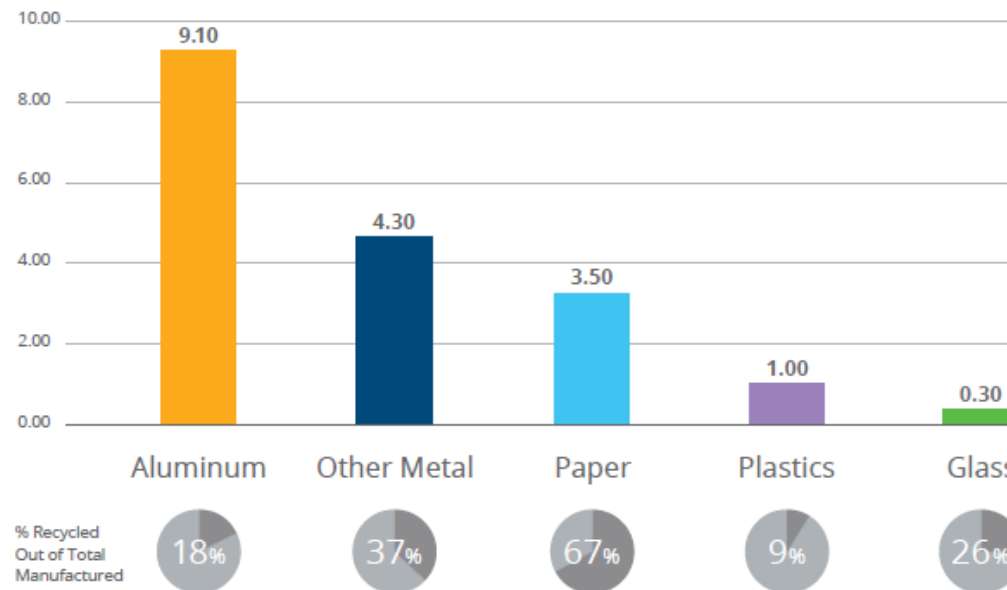
*Water Bottles → Almost 2x transactions*

Commodity markets have steadily declined  
*OCC down 40% → Mixed Paper down 95%*

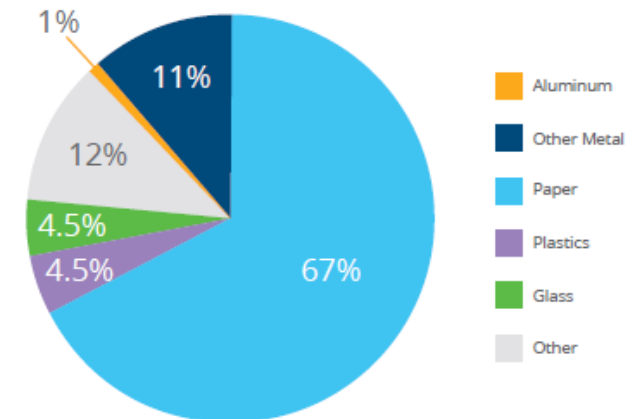
# Measurements of U.S. Recycling Success

- Current metrics focus on weight (e.g. 50% recycling goal)
- This incentivizes “any” rather than the “right” diversion
- Some of the more beneficial carbon dioxide equivalent (CO<sub>2</sub>e) materials are lighter

Tons of CO<sub>2</sub>e Savings per ton of Material Recycled  
(Greenhouse Gas Benefit)



% by Weight of Commodities Sold  
by Republic Services



Source: Advancing Sustainable Material Management 2015 Fact Sheet, EPA, 2018

## Summary:

- Weight-based goals do not correlate to greenhouse gas benefits
- Reconsider “Any Diversion” (weight) vs “Most Beneficial Diversion”



We'll handle it from here.®

## Why Keep Your Recyclables Clean?

Because China's new policies have dramatically reduced the amount of recycling it's accepting. And it's requiring *much* cleaner materials.

To meet these new strict quality requirements, here are the top things you can do to reduce contamination in your blue recycling cart:

- Place recyclables in cart loosely (not bagged except for plastic bags) for easier processing.
- Bag your clean and dry filmy plastic bags inside a larger plastic bag.
- Toss food-soiled paper (like napkins and paper food boxes) into your green cart.
- Wipe or scrape food residue out of containers.
- Keep paper clean and dry.
- Keep plastics and containers empty, clean and as dry as possible.
- **And most of all...NO garbage in the blue cart!**



PLEASE KEEP ON RECYCLING!



FSC  
PLACEMENT



EVERYDAY RECYCLING MADE EASY

# RecycleSmart

APARTMENT & CONDO EDITION WINTER 2019

## Make it your mantra: Empty, Clean and Dry.

Those three words tell you everything you need to know about how to prepare glass and plastic for recycling.

Why are we chanting this new tune? It's because recent international policies have set a much higher standard for the quality of glass, plastic and paper that countries like China will accept for recycling. For example, all paper products must be completely clean—even a trace of food waste will turn that recyclable cardboard into garbage. Offending leftovers like soda, grease, mayonnaise or milk can creep out of containers and contaminate paper products. And don't even get us started on peanut butter...

Keeping our recycling uncontaminated can be a challenge when it all goes into the same blue bin. But if we take a little time to make sure that our plastic and glass containers are empty, clean and dry beforehand, we can keep our recyclables pure. Of course we can do it!

So take that last bite of almond butter, spread that last bit of jelly. Wipe the jars clean (or stick them in the dishwasher along with your dirty plates), then let them dry completely before you put them in your blue bin. Those extra few seconds really make a difference between a longer life cycle for our materials or the landfill forever.

All food-soiled paper products like greasy pizza boxes, take-out cartons and used napkins go into the black bin (if your complex doesn't have an organics green bin), keeping the blue bin pristine for empty, clean and dry recycling.

So let's all sing together: Empty, Clean and Dry!

"Ahh! Ready for my new life."

MEET OLIVER, RECYCLESMT'S NEW POSTER PUP!

Oliver wants to remind everyone to clean out your jars before sorting them into the blue cart. Woof!



# Outreach

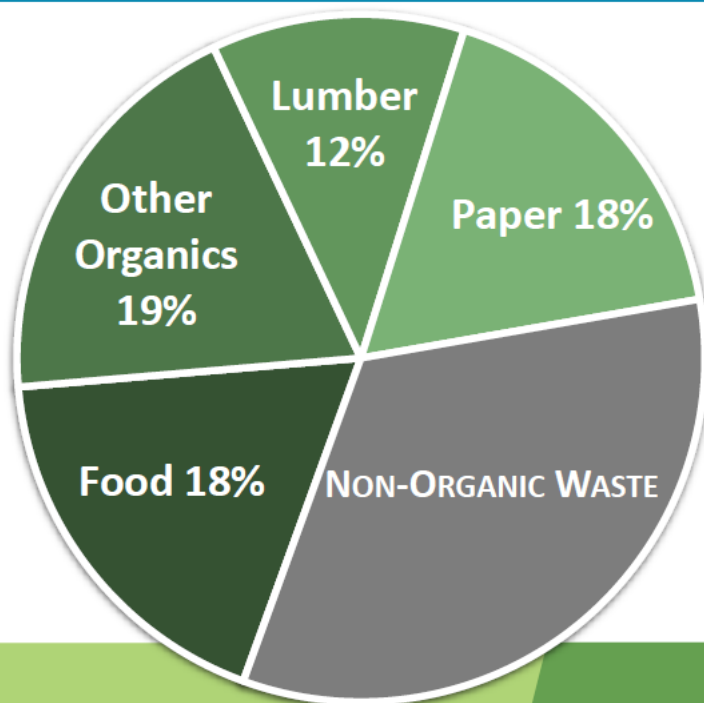


# Food Waste & Organics



# Big Picture: The problem

## Organic Waste Comprises Two-Thirds of California's Waste Stream



## IN CALIFORNIA, MILLIONS ARE **FOOD INSECURE**



CALIFORNIA THROWS AWAY  
**5.6 MILLION TONS**  
OF FOOD WASTE EVERY YEAR!

**CalRecycle** 

CA generates 20-23 million tons of organic waste every year

# Mandatory Commercial Organics Recycling

## AB 1826 Implementation Schedule

April 2016 – 8 Cubic Yards Organic Waste



Jan 2017 – 4 Cubic Yards Organic Waste



Jan 2019 – 4 Cubic Yards Solid Waste  
(All AB 341 Businesses)



> Jan 2020 – 2 Cubic Yards Solid Waste  
(CalRecycle Determination)



## Organic Methane Emissions Reductions

2020

50 PERCENT REDUCTION IN LANDFILLED ORGANIC WASTE  
(11.5 MILLION TONS ALLOWED ORGANIC WASTE DISPOSAL)

2025

75 PERCENT REDUCTION IN LANDFILLED ORGANIC WASTE  
(5.7 MILLION TONS ALLOWED ORGANIC WASTE DISPOSAL)

2025

20 PERCENT OF CURRENTLY DISPOSED EDIBLE FOOD MUST BE  
RECOVERED FOR HUMAN CONSUMPTION



## Recovery

Recycling

Composting

In-Vessel  
Digestion

Biomass  
Conversion

Soil  
Amendments at  
Landfills\*

Land  
Application\*

Animal Feed

Food Recovery

Activities  
Verified under  
Section 18983.2

\*Soil amendments and land application must comply with additional standards to limit the potential for anaerobic conditions and methane generation\*



# Residential Organics



## Recycling



**YES**

Mixed Plastics, Metal, Glass, and Paper

**NO**

Food Scraps, Garbage, Green Waste, Styrofoam, Hot Ashes, Hazardous Waste, Batteries or Electronics



## Organics



**YES**

Yard Trimmings, Fruits, Vegetables, Dairy Products, Breads, Meat, Seafood (including bones and shells), and Food Soiled Paper

**NO**

Plastic, Glass or Metal



## Landfill

### LANDFILL BASURA



- NO...**
- Recyclable Items
  - Yard & Food Waste
  - Electronic Items
  - Sharps
  - Medicine
  - Fluorescent Bulbs
  - Motor Oil/Filters
  - Hazardous Materials
  - Batteries



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## Cart Setout Instructions

Set carts on the street next to the curb and away from vehicles. Place carts out by 6 am on your collection day.



## Recycle Smart. Landfill Less.

You can switch your 64 gallon blue recycling cart and/or green organics cart to a larger 96 gallon size at no extra cost!

- Additional recycling of:
  - Plastic bags
  - Household batteries\*
  - Cell phones\*
  - Compact Fluorescent Bulbs (CFL's)\*



\*Place all items in a sealed plastic zip lock bag(s). Place batteries and cell phones on top of the blue recycling cart and place CFL's next to your blue recycling cart on your collection day.

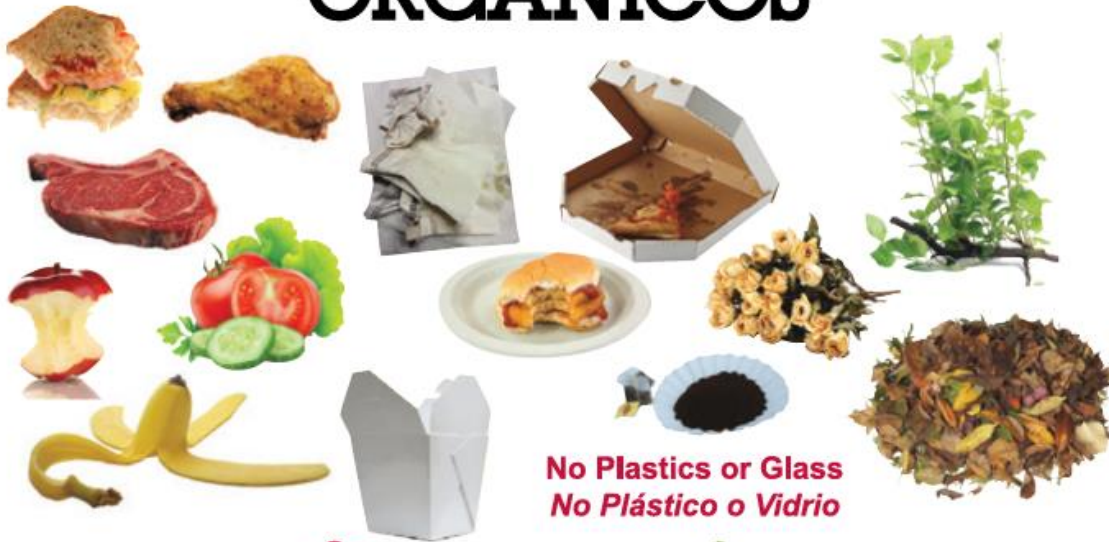
## Extra Collection Services

- 1 scheduled non-recyclables collections
- 4 scheduled collections for yard trimmings and/or extra recyclables

For more information or to schedule an extra collection call Republic Services at (925) 685-4711. For more detailed information, visit [recyclesmart.org/reusedays](http://recyclesmart.org/reusedays).

# ORGANICS

## ORGANICOS



**No Plastics or Glass**  
**No Plástico o Vidrio**



Call us (925) 685-4711



**CENTRAL CONTRA COSTA**  
**SOLID WASTE AUTHORITY**

Visit [www.wastediversion.org](http://www.wastediversion.org)

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 **FOOD SCRAPS** 

All Food Scraps

Food Soiled Paper

Use compostable bags only | [www.recyclesmart.org](http://www.recyclesmart.org)



# "Green-Washing"

## "Compostable" Plastics

- Bio-based
- Degradable / Biodegradable
- Compostable
- BPI Certified



No "Compostable" Plastics, at least locally.

# "Green-Washing"





# Monitoring Contamination



These items do not belong in the green organics cart:



## ACCEPTED ORGANICS

Use only BPI-Certified compostable bags, newspaper or brown paper bags to line your kitchen food scrap container.

### Food scraps:

coffee grounds  
cooked food  
dairy  
egg shells  
fish & shells  
fruit  
meat & bones  
vegetables

### Soiled paper:

coffee filters  
napkins  
paper plates  
paper towels  
pizza boxes  
tea bags  
paper egg cartons  
paper food containers

### Yard trimmings:

flower cuttings  
grass  
leaves  
prunings  
small branches

RecycleSmart was in your neighborhood today looking in your green organics cart.

 **PS! We Noticed Something in Your Cart.**

[www.RecycleSmart.org](http://www.RecycleSmart.org)



# Commercial Organics

## Composting organic waste is mandatory

State Law\* requires businesses to arrange for organics composting.

To start (or increase) composting organics at no additional cost, call Republic Services at (925) 685-4711.



[RecycleSmart.org/Businesses/green-bin](https://RecycleSmart.org/Businesses/green-bin)



\*Assembly Bill 1826 applies to businesses generating 4 cubic yards or more of organic waste per week.



# Education & Training



## Food Waste Recycling

**YES** **SÍ**

**FRUITS & VEGETABLES** **FRUTAS Y VERDURAS**

**DAIRY PRODUCTS & BREADS** **PRODUCTOS LÁCTEOS, Y PANES**

**PAPER TOWELS** **SERVILLETAS**

**MEAT & SEAFOOD** **CARNE Y MARISCOS**  
including bones and shells / huesos y conchas incluidos

**NO**  
no cardboard, plastic, glass or Metal

**Recycle Smart**  
Central Contra Costa Solid Waste Authority

**REPUBLIC SERVICES** **EBMUD**

Call Republic Services if you have questions.  
Lláme a Republic Services si tiene preguntas.  
**925-603-1383**



# Not Just Restaurants!





# Processing Food Scraps





# Processing Food Scraps





# Processed Food Scraps





# Anaerobic Digestion at EBMUD



Other things going on...



## ✓ **SB 1332: Sustainable Take-out Food Packaging at Parks, Beaches & State Facilities**

- All food service packaging provided at these locations is locally recyclable, compostable, or reusable, as determined by CalRecycle

## ✓ **AB 1884: Straws Upon Request**

## ✓ **AB 2411: State Compost Procurement**

- Requires CalRecycle to use compost in post-fire restoration and identifies opportunities for increased compost use in CalTrans landscape projects

## ➤ **AB 2379: Plastic Microfibers**

- Would have required all clothing made primarily of plastic include a label that warns of plastic microfiber shedding (to encourage people to buy alternatives) and recommend handwashing the item

## ➤ **AB 2779: Connect the Cap**

## ➤ **AB 2110: Right to Repair Act**

- Would have required manufacturers of electronics to make diagnostic and repair information, as well as equipment or service parts, available to product owners and to independent repair shops

## POLITICS

## California lawmakers propose phasing out plastic products that aren't recyclable

By PATRICK MCGREEVY FEB 21, 2019 | 12:05 AM | SACRAMENTO



Trash from the Los Angeles River litters a beach along Shoreline Drive in Long Beach in 2010. (Los Angeles Times)

With Californians already barred from getting plastic straws in many restaurants unless they request them and grocery stores not providing single-use plastic bags, state lawmakers are again proposing to ramp up efforts aimed at significantly reducing products that are not recyclable, including plastic cups, forks, spoons and packaging.

New legislation announced Wednesday would require plastic and other single-use materials sold in California to be either reusable, fully recyclable or compostable by 2030.

The measure would also require the state to recycle or otherwise divert from landfills 75% of single-use plastic packaging and products sold or distributed in California, up from the 44%

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## LATEST POLITICS

'Too complex to fly'? Trump riff on planes shows aversion to technological change and science

12m





CONTRA COSTA  
COUNTY

## POLYSTYRENE BAN

### WHY BAN POLYSTYRENE?

Polystyrene (sometimes called Styrofoam™) production uses hydrofluorocarbons, identified as a contributor to the hole in the ozone layer

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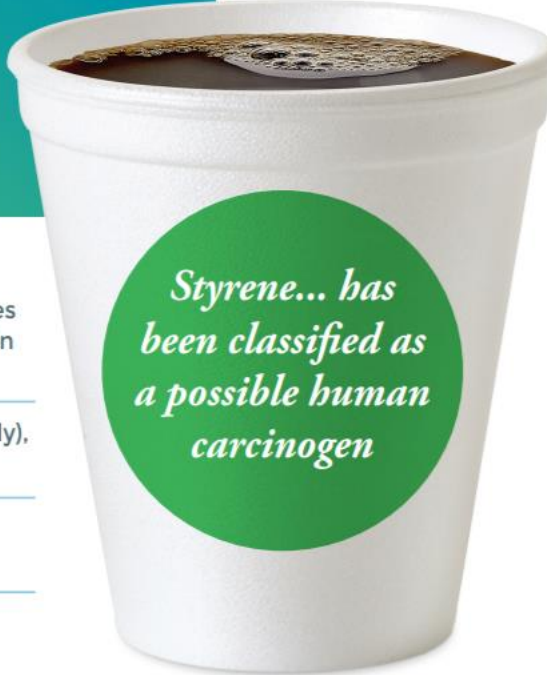
Polystyrene is not biodegradable, is not recyclable (economically), and breaks into micro-pieces in the environment

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Styrene, the main component of polystyrene, has been classified as a possible human carcinogen

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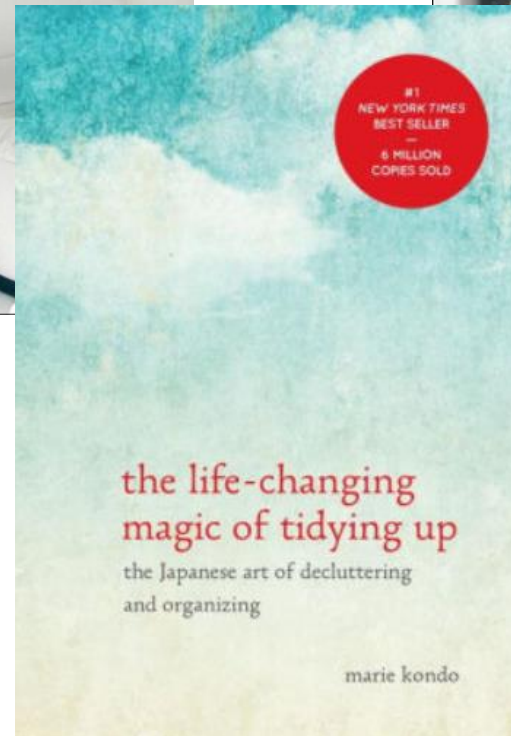
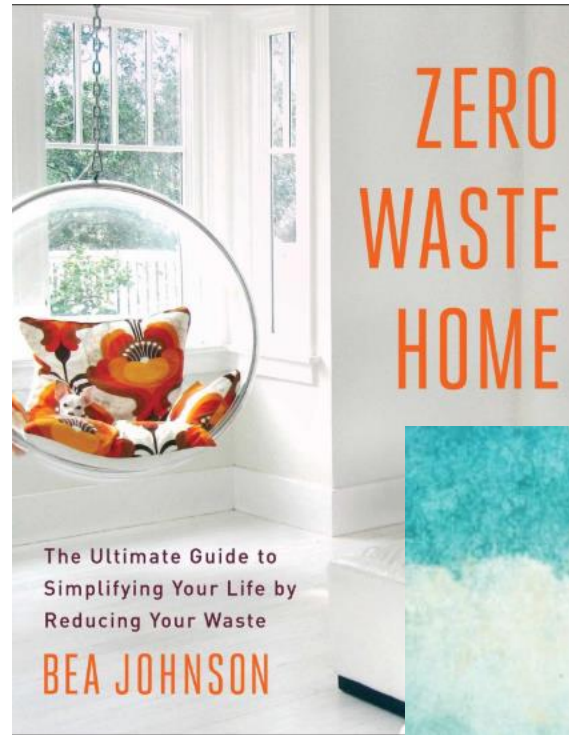
Polystyrene chemicals can leach into food stored in polystyrene containers



10 of 19 CC cities already have ban in place



# Trends





# Thank you!

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