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# San Francisco Upgrades MRF and Collection Program

Jack Macy, NCRA Recycling Update 2018





# San Francisco Recology Recycle Central MRF from 2002





# Titus LA Secondary MRF Recovers 1<sup>st</sup> MRF Residuals





# Recology Recycle Central MRF Upgrade 2016 & 2017





# Recology MRF Upgrade: Drum Feeder





# MRF Upgrade: Longer Presort Conveyor with 14 stations





# MRF Upgrade: OCC Screen







# MRF Upgrade: 4 Fiber Screens in 2 parallel sets





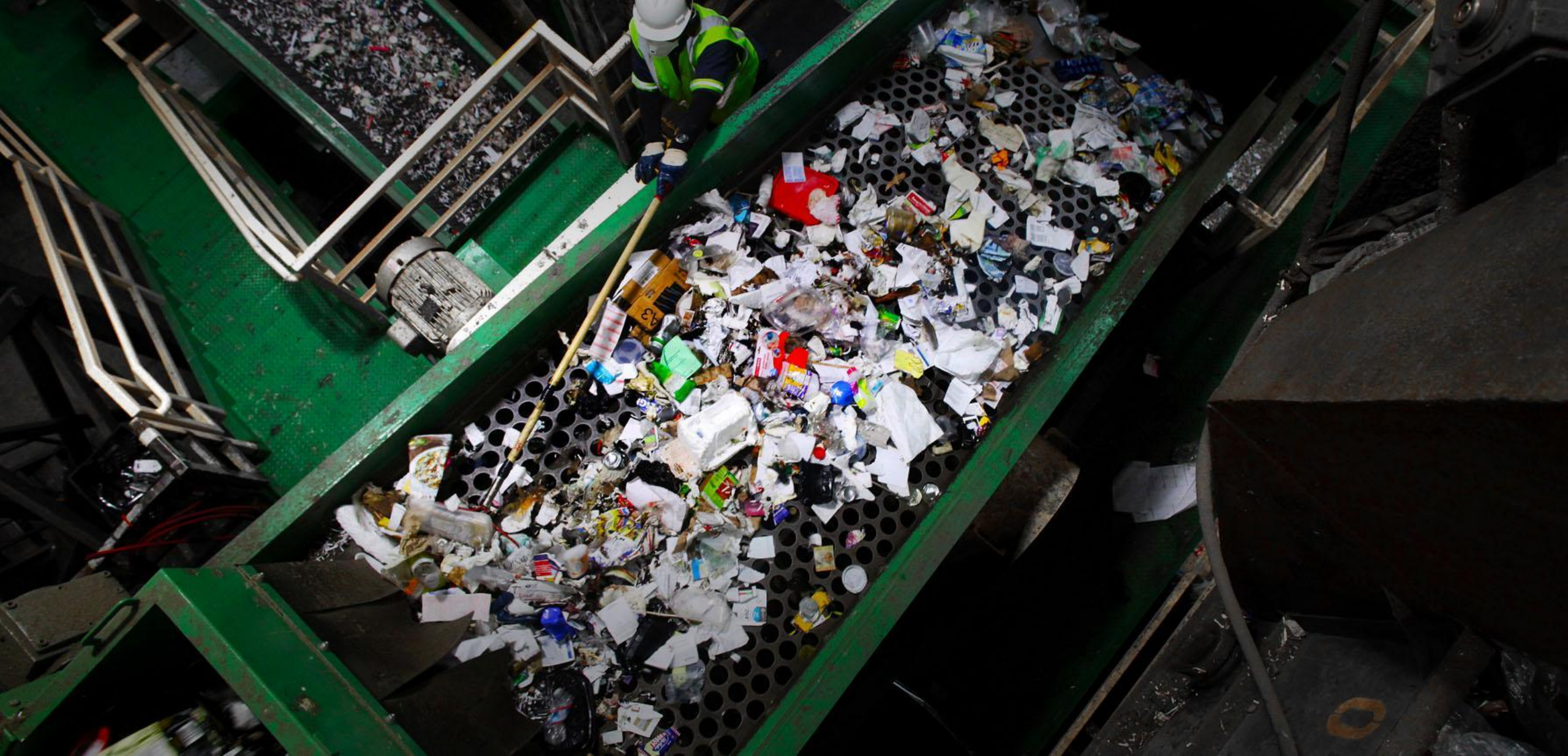


# MRF Upgrade: Conveyors and QC lines





# MRF Upgrade: Expanded Glass Cleaning System





# MRF Upgrade: 2 Additional Optical Sorters





Upgrade goal: increased recovery and reduce residual

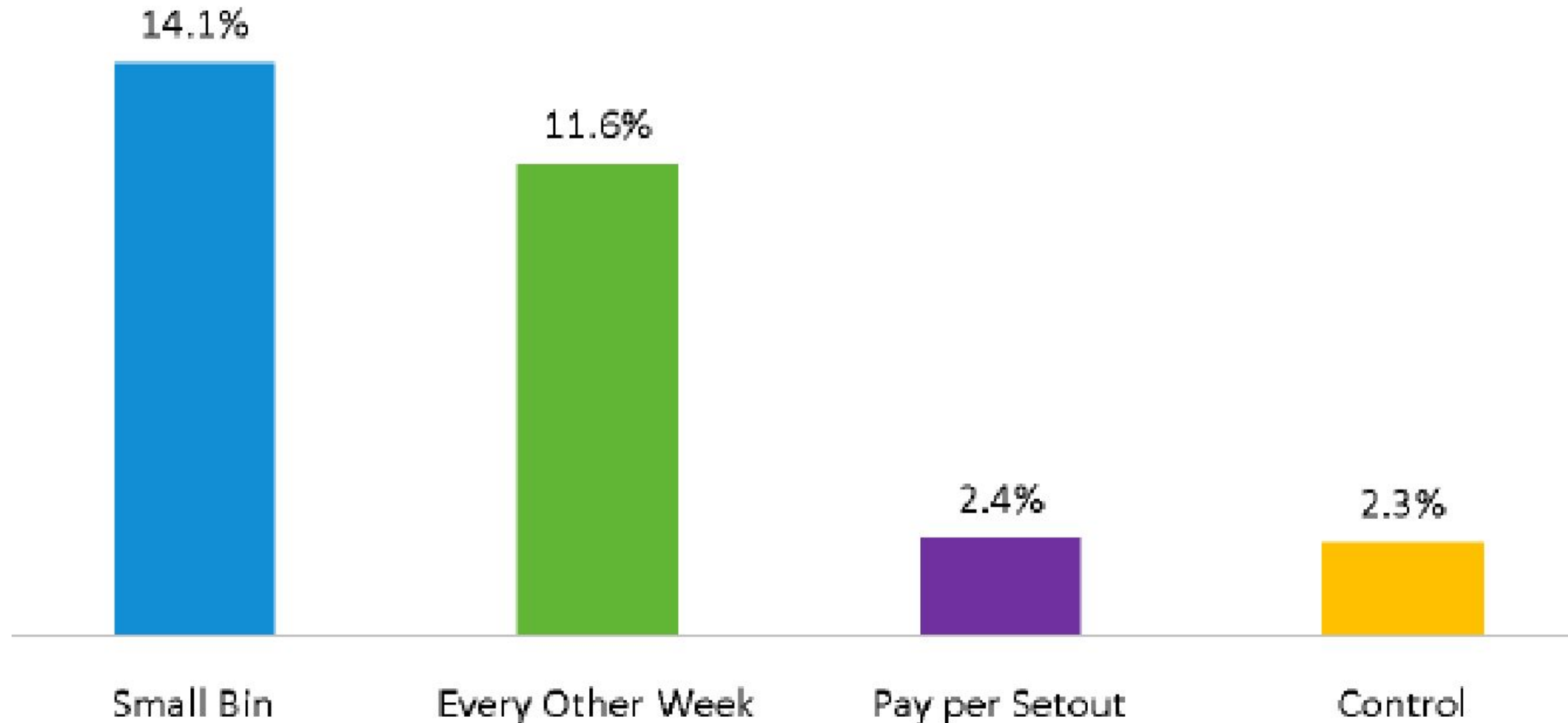




# 3 Collection Program Changes Tested To Reduce Trash



Increase in Diversion % by Test







# Changes in What Bins Materials Go

OLD



NEW





# Updated Recycling Bin Signage



回收

RECYCLE

RECICLAR

紙

**Paper**  
Papal



**Empty cartons, cardboard, and paper cups**  
乾的紙盒、紙板和紙杯  
Recipientes secos de cartón, cartón y vasos de papel

塑膠

**Plastic**  
Plástico



**All hard, empty plastics**  
各種硬的、空的塑膠製品  
Todos los plásticos duros y vacíos

玻璃

**Glass**  
Vidrio



**All colors of glass containers**  
各種顏色的玻璃容器  
Recipientes de vidrio de todos los colores

金屬

**Metal**  
Metal



**Small aluminum, tin, and steel items**  
小的鋁、錫和鋼製品  
Artículos pequeños de aluminio, latón y acero

所有塑料袋都放在一个袋子裡

**Bagged soft plastics**  
Bolsas de plástico en una bolsa



**Put all clean plastic bags and wrap inside one bag.**  
將所有乾淨的塑膠袋和包裝紙放進袋子裡。  
Meta las bolsas limpias y plástico elástico para envolver, dentro de una bolsa.

**i SFRecycles.org**



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# Updated Recycling Bin Signage



## 堆肥

## COMPOST

## COMPOSTAR

廚餘食物  
**Food scraps**  
Restos de comida



Includes meat, bones, shells, and peels  
包括肉、骨頭、殼和果皮  
Incluso carne, huesos y cáscaras

髒的紙盒  
**Dirty paper containers**  
Recipientes sucios de papel



Takeout containers and paper plates  
外帶盒和紙盤  
Recipientes para llevar comida y platos de papel

植物  
**Plants**  
Plantas



Flowers, leaves, branches, and weeds  
花、葉子、樹枝和雜草  
Flores, hojas, ramas y hierbas

擦手紙和紙巾  
**Paper towels & tissues**  
Toallas y pañuelos de papel



Respect resources, use sparingly  
珍惜資源、謹慎使用  
Respete los recursos, úselos con moderación

可分解的塑膠製品  
**Compostable plastics**  
Plásticos compostables



Item must be labeled "compostable" or BPI  
物品必須標有 "compostable" (可分解) 或 BPI  
El artículo debe estar rotulado como "compostable" o BPI

**i** [SFRrecycles.org](https://www.sfrrecycles.org)



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# New Dedicated Website: SFRecycles.org

**SF Recycles**

**Español 中文 English**

## Recycle

- ◀ Recycle even more!
- ◀ Paper
- ◀ Cardboard
- ◀ Metal
- ◀ Plastic
- ◀ Glass

## Compost

Food scraps ▶







# Pull Down Tabs, For Example: What's New in the Blue



## Recycle

▼ Recycle even more!



Plastic bags,  
plastic wrap  
Bundle clean, dry  
plastic inside one  
plastic bag.



Paper coffee  
cups (empty)  
Recycle empty  
cup, sleeve, and  
plastic lid.



Milk cartons,  
juice cartons  
(empty)



Ice cream  
containers

## Compost

Food scraps >

Food containers >

Dirty paper >

Yard waste >

Wood >

Organic material >





# Citywide Rollout for Smaller Trash and Larger Recycling



## RESULTS SO FAR

- 62K Single Family Households
- 30% Opted Out of 16 gallon Trash
- 11% Trash Reduction
- 12% Recycling Increase



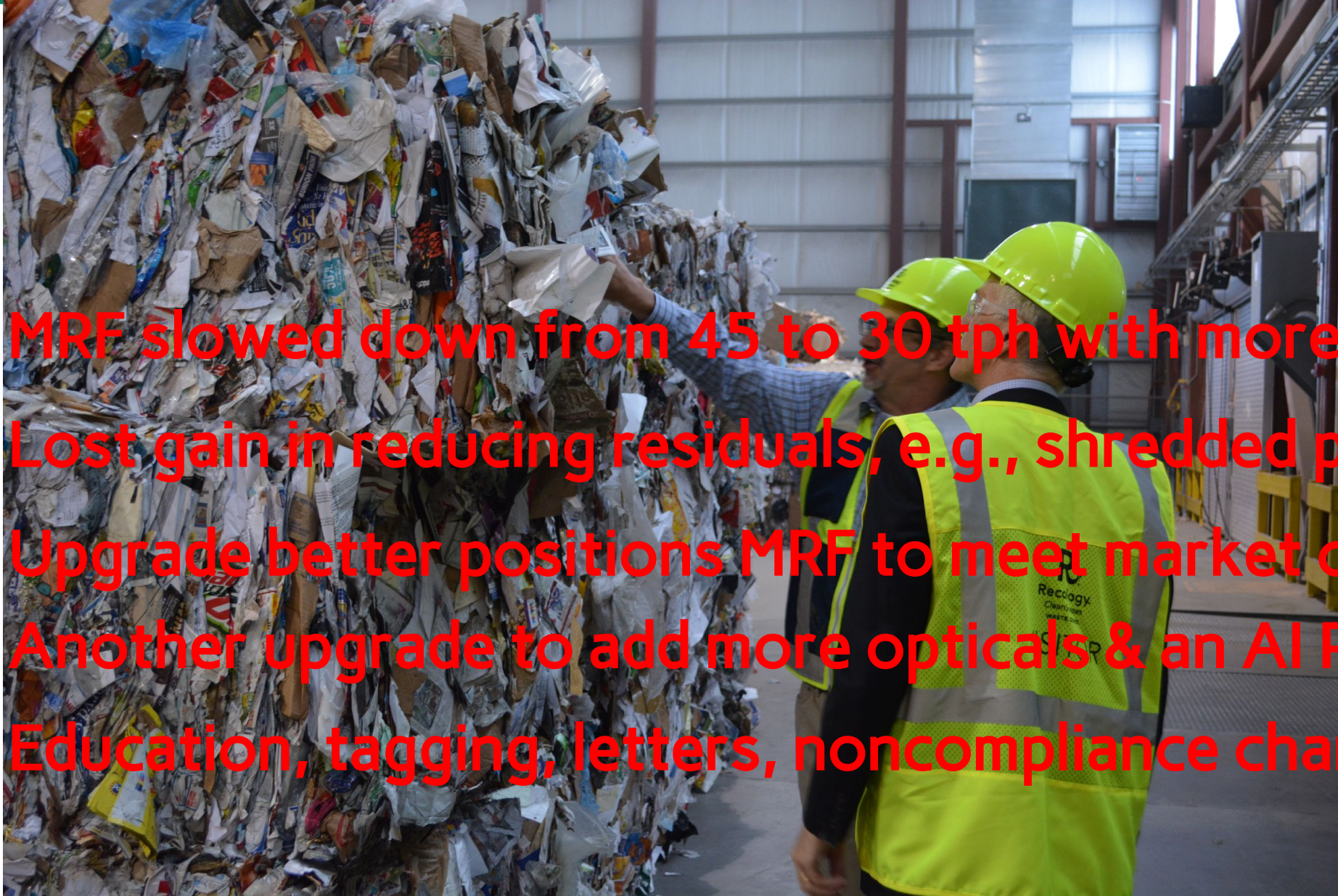
Larry Strong, Courtesy of Recology



# National Sword Hits: More Residual, Upgrades & Outreach



- MRF slowed down from 45 to 30 tph with more QC
- Lost gain in reducing residuals, e.g., shredded paper
- Upgrade better positions MRF to meet market changes
- Another upgrade to add more opticals & an AI Robot
- Education, tagging, letters, noncompliance charges





# Recology Customer Newsletter on Stricter Standards



Check out the City's new website: [SFRecycles.org](https://SFRecycles.org)

# RecologySF.com



Recology Sunset Scavenger and Recology Golden Gate, your local recycling companies | Recycle | Compost

January - March 2018

## China tightens recycling import rules

**W**e have all seen the pictures of cities in China with air pollution so bad citizens have resorted to wearing masks. To help improve the environment, the Chinese government recently implemented new rules severely restricting the import of recycled plastics and recycled paper.

With the paper mill industry declining in the US, we have been shipping much of our baled paper to China, where high-quality recycling is made into products such as cereal boxes and shipping cartons.

Historically, China has accepted 4 to

US recycling businesses will need to more stringently sort the waste they collect, and households will have to do a better job.

—Wall Street Journal

“Slow down a little

participate in the green bin composting collection program. When we separate banana peels, coffee grounds, and food-soiled paper, they do not touch recycled paper. This keeps recycled paper dry and clean and helps San Francisco comply with China's new quality requirements.

### MEETING THE CHALLENGE

The City and Recology are taking the challenge to reduce impurities in our recycling bales head on.

We invested \$11 million upgrading Recycle Central in 2016 and will invest another \$3 million this year. This is





# Thank You

Jack Macy

Zero Waste Commercial Senior Coordinator

[Jack.macy@sfgov.org](mailto:Jack.macy@sfgov.org)

415-355-3751



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SFEnvironment.org • (415) 355-3700

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