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San Francisco's Organics Collection, Composting & Anaerobic Digestion

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Zero Waste Program

Department of the Environment

City and County of San Francisco



Zero Waste Goals



- Goals of 75% diversion by 2010 and zero waste to landfill or incineration by 2020 with highest and best use
- Achieved 80% diversion in 2010
- Landfilling halved in 10 years to least on record

Zero Waste Strategy



- Establish convenient source separation programs
- Conduct extensive public outreach
- Provide generator & service provider incentives
- Adopt policies and enforce
- Develop material separation and recovery processing

3 Stream Collection by Recology





Recycling

可回收

RECYCLABLES

RECYCLABLES



Composting



可自然化解 **COMPOSTABLES** RESIDUOS DE COMIDA Y DEL JARDIN

What's Left for Landfill



廢物 **WASTE** BASURA

Split Trucks



Dedicated Trucks





Residential Food Scraps Collection Options

Food Scrap Collection is Easy.



"Compostable" Bag
自然化解的膠袋
Balsa "Compostable"



QUESTIONS?
RecologySF.com/compost

Large Generators



Targeted Outreach





City Department & Commercial Assistance



Presentations



Waste audits



Multi-lingual training



Monitoring



Containers, Signs and Stickers



Diversion Incentives



Generator Incentive: “Pay As You Throw”

- Pay for Collection Service... like a Utility... electricity, water or gas...
- Residents pay for trash to landfill
- Business pay for 3 streams that are discounted by diversion volume %, e.g., one black, one blue, one green = 67% discount



Service Provider Gets Diversion and Disposal Incentive

Recology's Jepsen Prairie Organics



Carbon & Nutrient Loop



Ordinances



- Mandatory Recycling & Composting
- Food Service Waste Reduction
- Checkout Plastic Bag Ban and Charge

Mandatory Recycling and Composting



- Property owners must pay for adequate refuse service
- Property, food vendor and event managers must provide color-coded, labeled bins and education
- Everyone must separate recyclables, compostables and trash
- Compostables collection increased 50% to 600 tpd

Residential Sector



- 350,000 households (150K SF, 200K MF)
- 99% have recycling
- >90% have composting (85% of all multifamily bldgs)



Commercial Sector

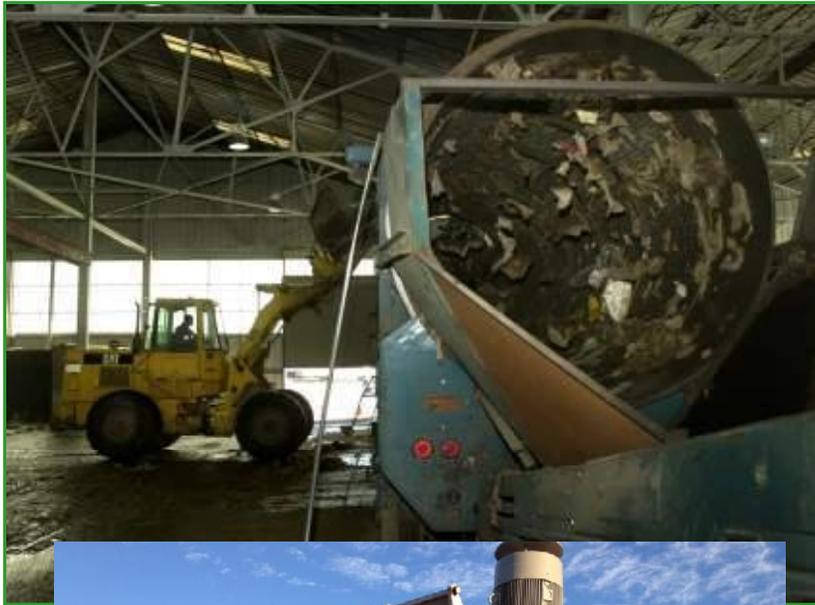


- >65,000 business
- 98% have recycling
- >85% have composting*
doubling since mandatory

* Verified compliant for source separation



Food Scraps Digested at WWTP



Anaerobic Digestion of SF Organics



- Restaurant food scraps shredded and screened then grit removal by rock trap and paddle finisher at WWTP for co-digestion using excess capacity at EBMUD
- Food scraps produces 3X biogas than biosolids, biogas generates electricity to power WWTP facility
- Currently testing other technologies to preprocess food scraps & organics for digestion
- Future Strategy:
 1. Dedicated digestion of food scraps (≤ 600 tpd) for biogas fleet fuel, digestate compost for organic market
 2. Recover organics from mixed waste (≥ 400 tpd) for possible co-digestion of biosolids, land apply digestate

Future Zero Waste Facility



A photograph of the Golden Gate Bridge in San Francisco, California. The bridge is a suspension bridge with two large towers and numerous cables. The bridge is painted a distinctive orange-red color. The background shows the San Francisco Bay, the city skyline, and hills under a clear blue sky.

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