



SFEnvironment

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A Department of the City and County of San Francisco

San Francisco's Food Composting Program

Jack Macy

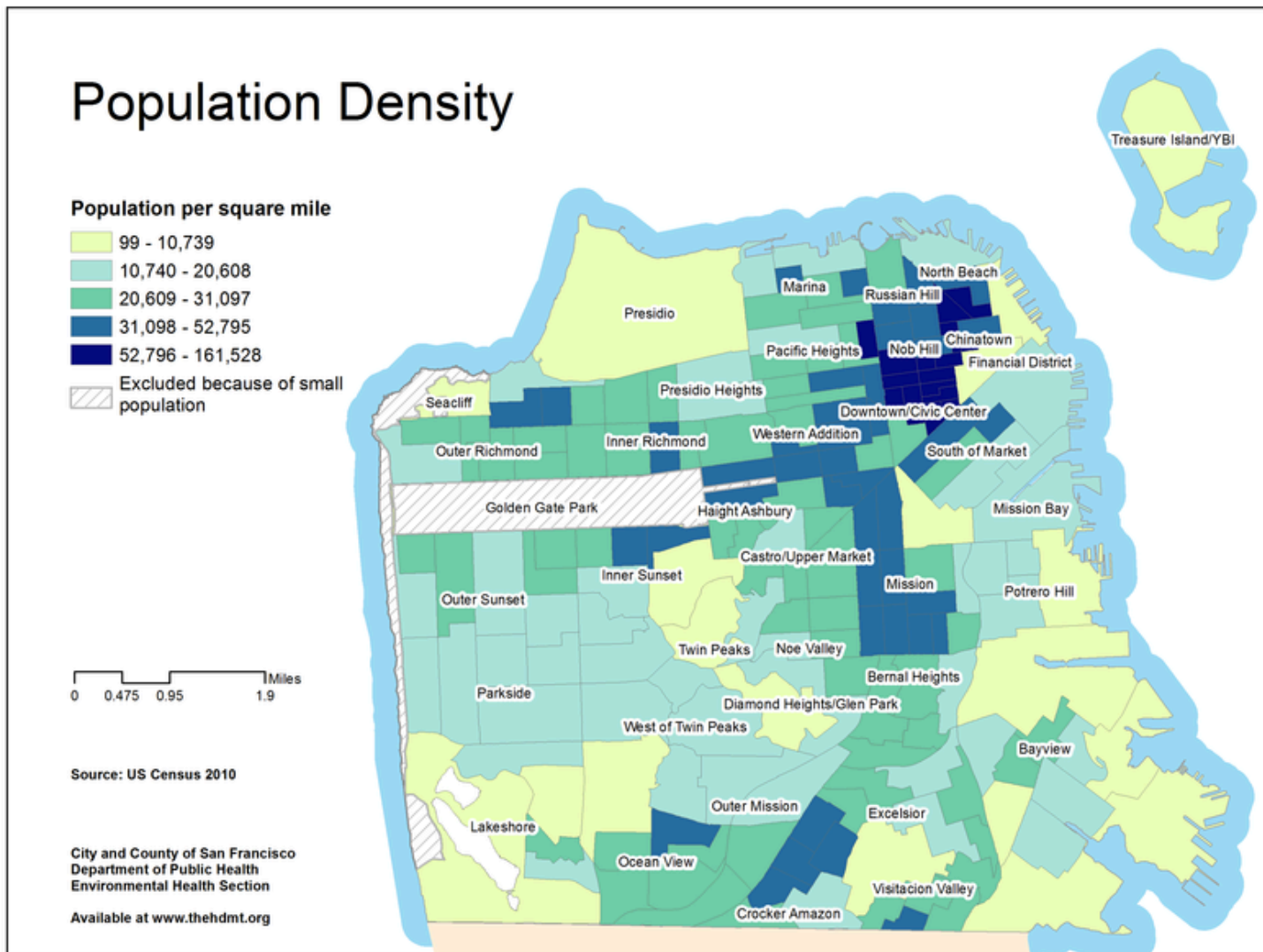
San Francisco Department of the Environment



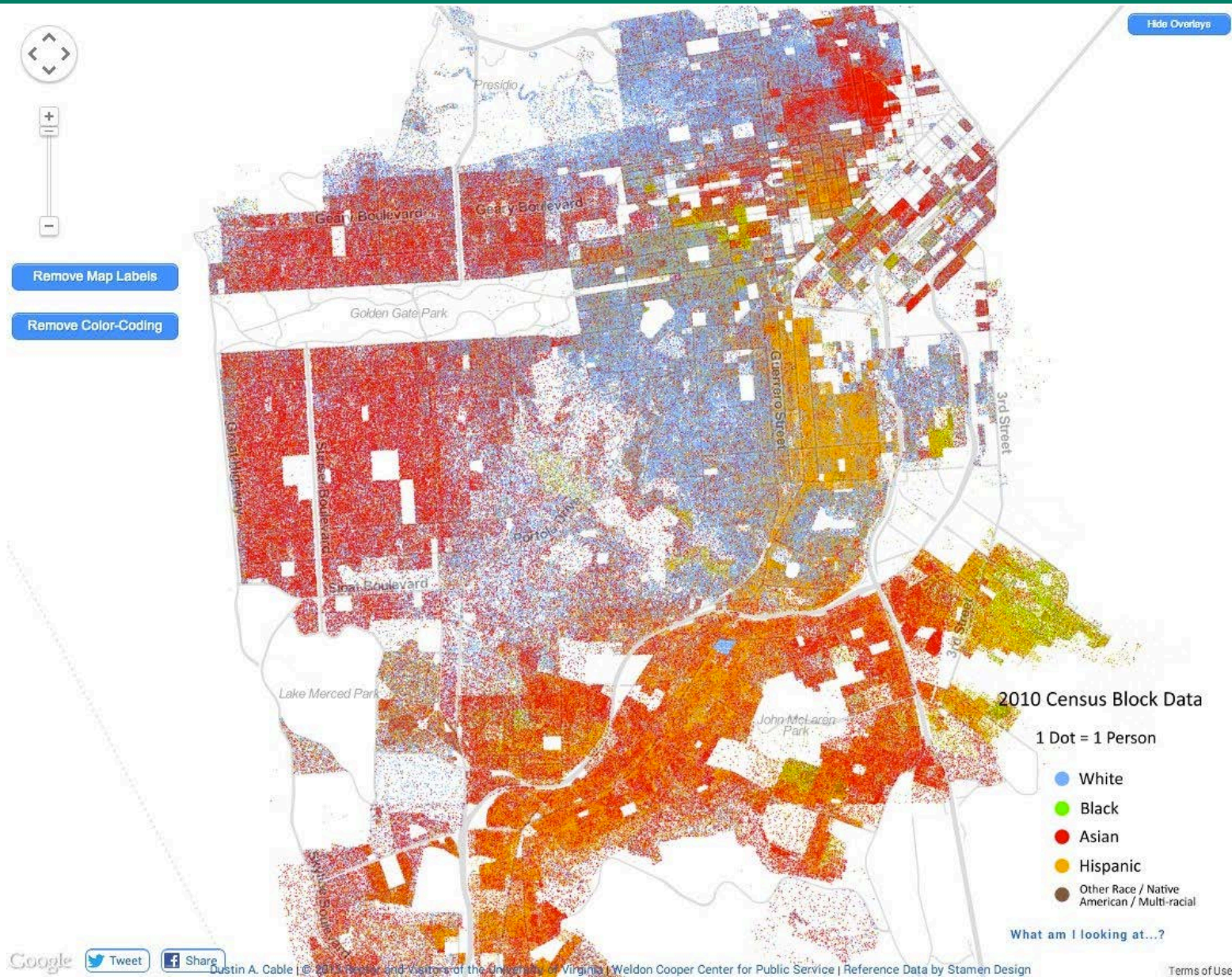
San Francisco



High Population Density



Multicultural and Multilingual Population





Zero Waste

To Landfill

To Incineration

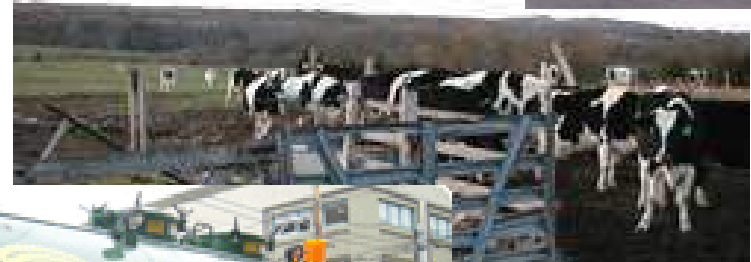
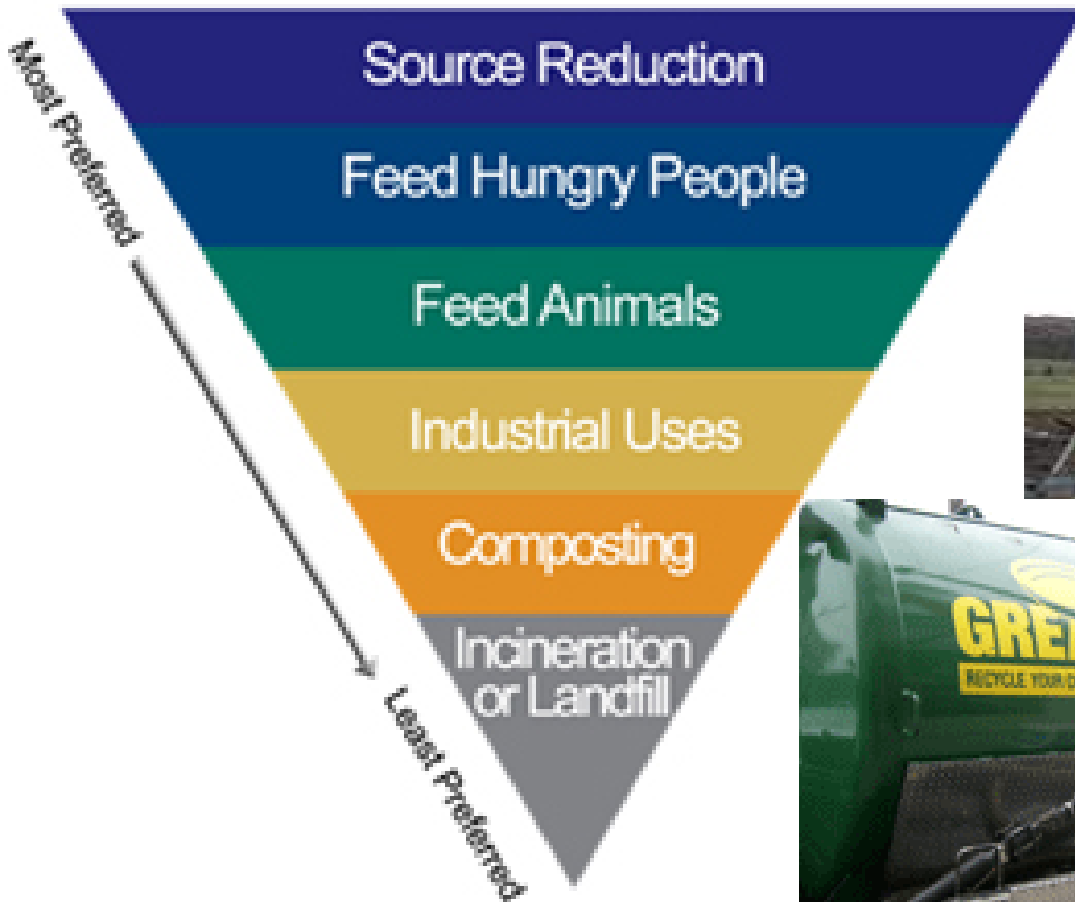
Promote Highest & Best Use

Increase Consumer & Producer Responsibility



Support Highest and Best Use Programs

Food Recovery Hierarchy



San Francisco's Approach



ENFORCEMENT MANDATES INCENTIVES OUTREACH PROGRAMS



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SF Environment
1455 Market Street, Suite 1200, San Francisco, CA 94103
SFEnvironment.org • (415) 355-3700

Strong Partnership



RecologyTM

Sunset Scavenger

Golden Gate

WASTE ZERO

Three Stream Collection



Photo courtesy of Recology

Collection Bin Signage



堆肥

COMPOST

ABONO



回收

RECYCLE

RECICLAJE



垃圾填埋場

LANDFILL

BASURERO



Compostables



Organics Collection: Multifamily Buildings



Food Scrap Collection is Easy.



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



Converting Trash Chutes



DO NOT MIX
Light Bulbs & Batteries.
Used light bulbs go in the 1st Floor
Trash Room.

НЕ СЛЕДУЕТ СМЕШИВАТЬ
Лампочки & Аккумуляторы.
Лампочки идут в
1^й номер корзины.

PUT THESE MATERIALS IN YOUR GREEN COMPOSTING BIN

COMPOSTING ABOVE

PLEASE DO NOT PUT THESE MATERIALS IN YOUR GREEN COMPOSTING BIN



PUT THESE MATERIALS IN YOUR BLUE RECYCLE BIN

PLEASE DO NOT PLACE THESE MATERIALS INTO YOUR BLUE RECYCLING BIN!

RECYCLE

QUESTION?
Recycling@SF.gov
800-368-3836
Inland Area
800-368-3836



Targeted Door-to-Door Outreach



Commercial Collection With Many Bin Types



Wholesale to Retail to Food Service to All





Food Service: Back-of-the-House



Copyright Brad Wenner

Restaurant Staff





Office Buildings



City Department & Commercial Assistance



Audits



Presentations



Multi-lingual training



Containers, Signs and Stickers



Monitoring

Efficient Collection Infrastructure



San Francisco Schools



Special Events



Web Resource: Custom Sign maker



STEP 1: CLICK ON THE SIGN YOU WANT TO CREATE



Composting Benefits In Billing Newsletter



RECOLOGYSF.com

Recology Sunset Scavenger and Recology Golden Gate, your local recycling companies

- 1 RECYCLE
- 2 COMPOST
- 3 TRASH

Our top 10 reasons to compost

10: Compost is a good alternative to chemical fertilizers because compost doesn't pollute groundwater, wells, or waterways.

9: Compost keeps organic materials out of landfills, which reduces methane gas emissions.

8: Compost sequesters carbon deep in the soil, especially when used to grow cover crops like mustard or beans.

7: Compost promotes healthy microbial activity in soil, providing micronutrients to plant roots and discouraging soil diseases.

6: Compost improves soil structure, thereby protecting topsoil from erosion.



5: Soils fed with compost retain more rainwater, conserving this precious resource.

4: Compost helps grow plants rich with nutrients that sustain your good health.

3: It's easy and satisfying.

2: Compost collection programs support green jobs.

1: Composting turns food scraps into fruits, vegetables, and fine wines. Bon appetite!

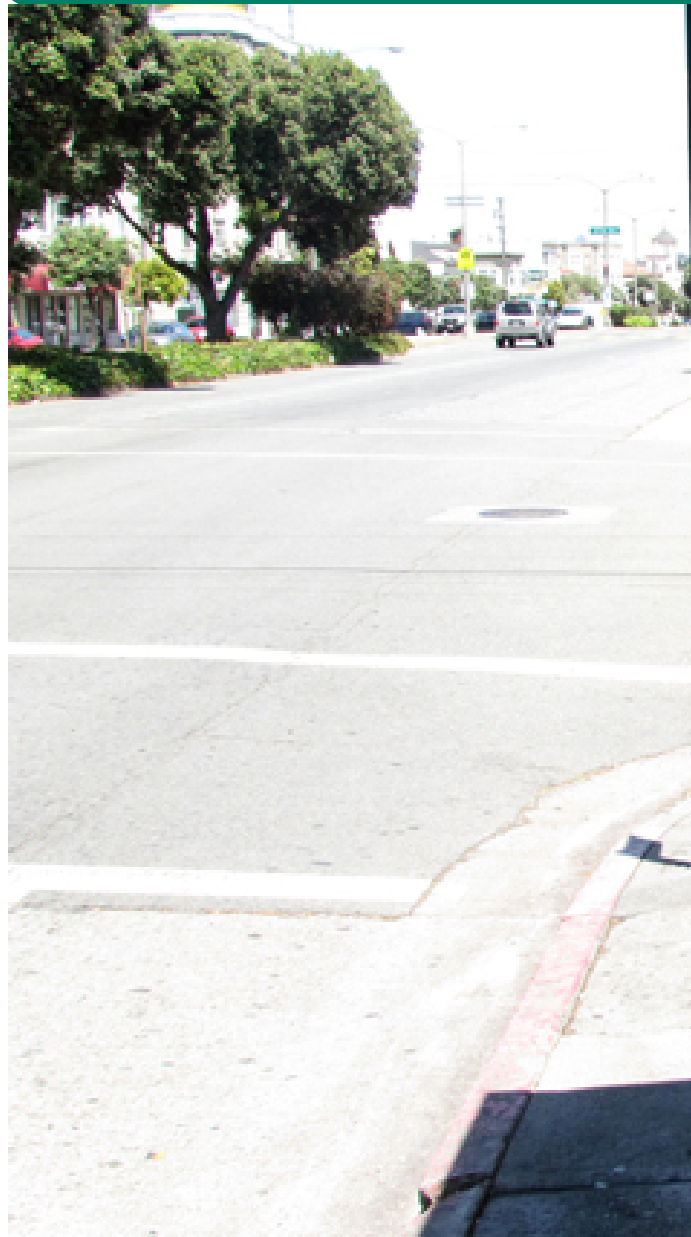
Share your top reasons to recycle and compost at [RecologySF.com/ContactUs](https://www.RecologySF.com/ContactUs)



Outreach Campaigns



Bus Shelter: We compost to help gardens



**We compost in the Richmond
because we love
community gardens.***



*Toss in the leftover pizza. Local gardens will thrive with the compost generated from the green bin.

**USE THE
GREEN
BIN.**

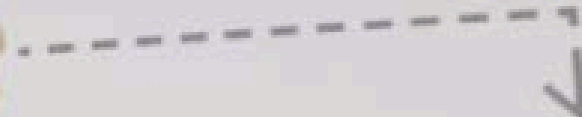


Recycling SF Environment
SFEnvironment.org (415) 355-3700

Bus Sign: Protecting future generations



We compost in San Francisco because we love our families.*



*Toss in the chicken bones. Composting protects future generations by slowing down climate change and sea level rise.



sfenvironment.org (415) 355-3700

Use the green bin.

Revised by 2015 and includes this ad copy

Chinese Business Composting Campaign



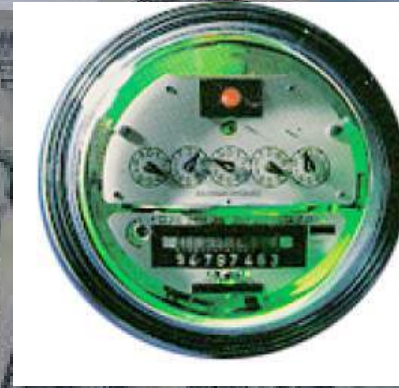
Environment Now In Person Outreach



Incentives: Pay As You Throw Service Rates



- Generator Pay for Collection Service... like a Utility... electricity, water or gas...
- Save by reducing trash service
- Commercial Diversion Discount
- Service Provider Incentive to Decrease Disposal



Side Loading Toter Collection



Dedicated Organics Transfer Station



Photo courtesy of Recology



650-700 tpd of Compostables

- **20% Residential Curbside**
- **5% Apartment**
- **75% Commercial**
- **2/3 rd (>400 tpd) food scraps**
- **Contamination 2-5%**



Recology's 4th Generation Composting Facility



Photo courtesy of Recology



Receive, Shred, Screen and Sort



Plastic Bags Primary Contaminant



Copyright Brad Wenner

Composting Piles Forced Aerated 30 Days



Aeration System Pulls Air From Piles



Air From Piles Through Hardwood Biofilters



Compost Screened: $<3/8''$, $<1.5''$ & $>1.5''$



Turned Windrow Curing 30 Days



Organic Grower Approved Compost



Photo courtesy of Recology

Custom Blending For Organic Markets



Compost For Landscaping & Golf Courses



Farms & Vineyards Primary Compost Market



Compost for Fruit and Nut Orchards



Compost Use At Vineyard: Base of Vine



Compost Use at Vineyards



Roots Pull Carbon from Air & Put in Soil



Photo courtesy of Recology

Compost for Rangeland Carbon Farming



Carbon and Nutrient Loop



Mandatory Composting & Recycling (2009)



Mandatory Recycling & Composting Ordinance

All persons must separate their refuse into recyclables, compostables and trash.

No person may mix recyclables, compostables or trash, or deposit refuse of one type in a collection container designated for another type of refuse.

Violations may result in loss of billing diversion discount or processing charge up to 50% of disposal or fines.

Bin Audits and Enforcement



Photo courtesy of Mark Boyer

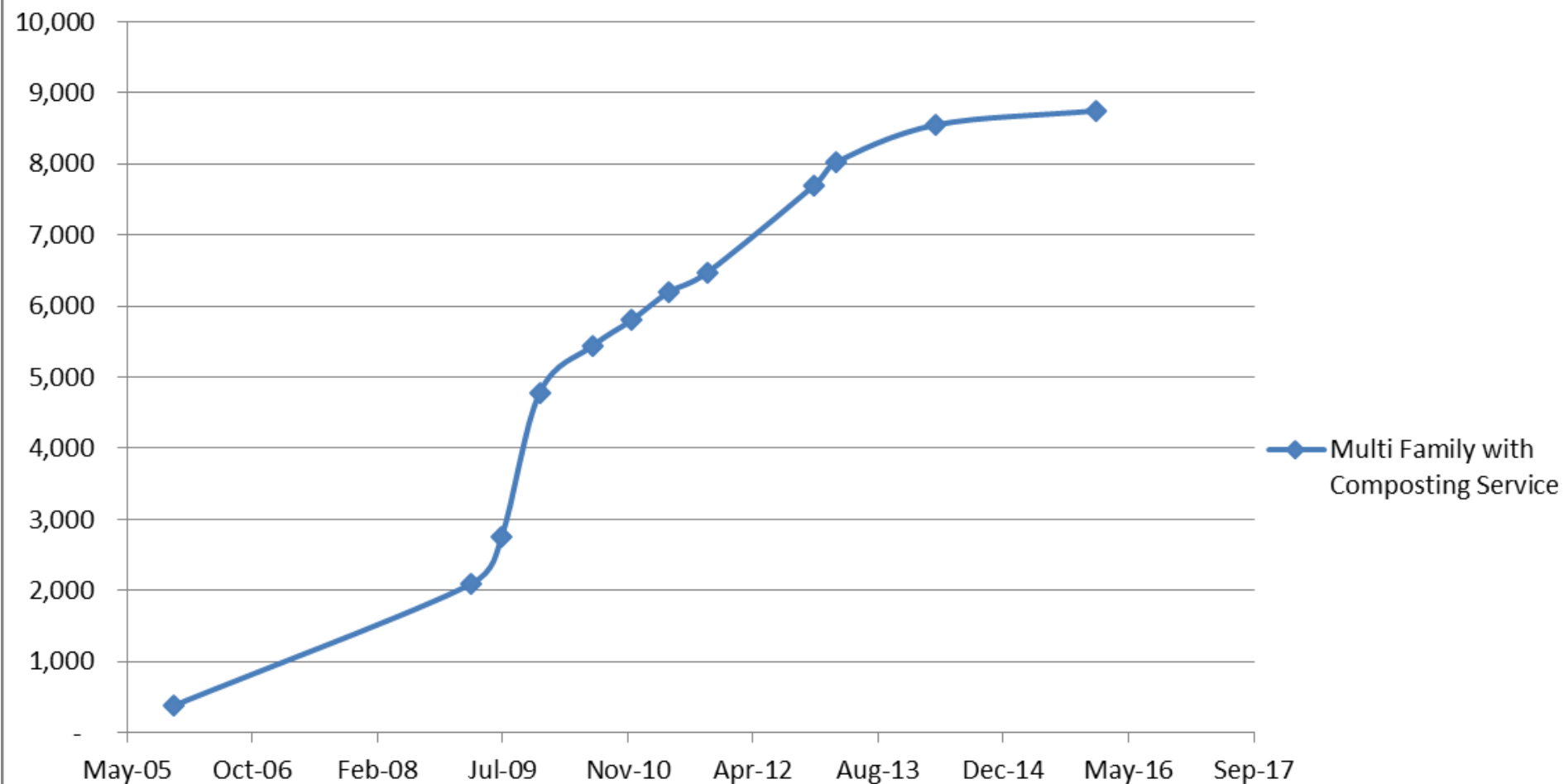
Direct Feedback Outreach



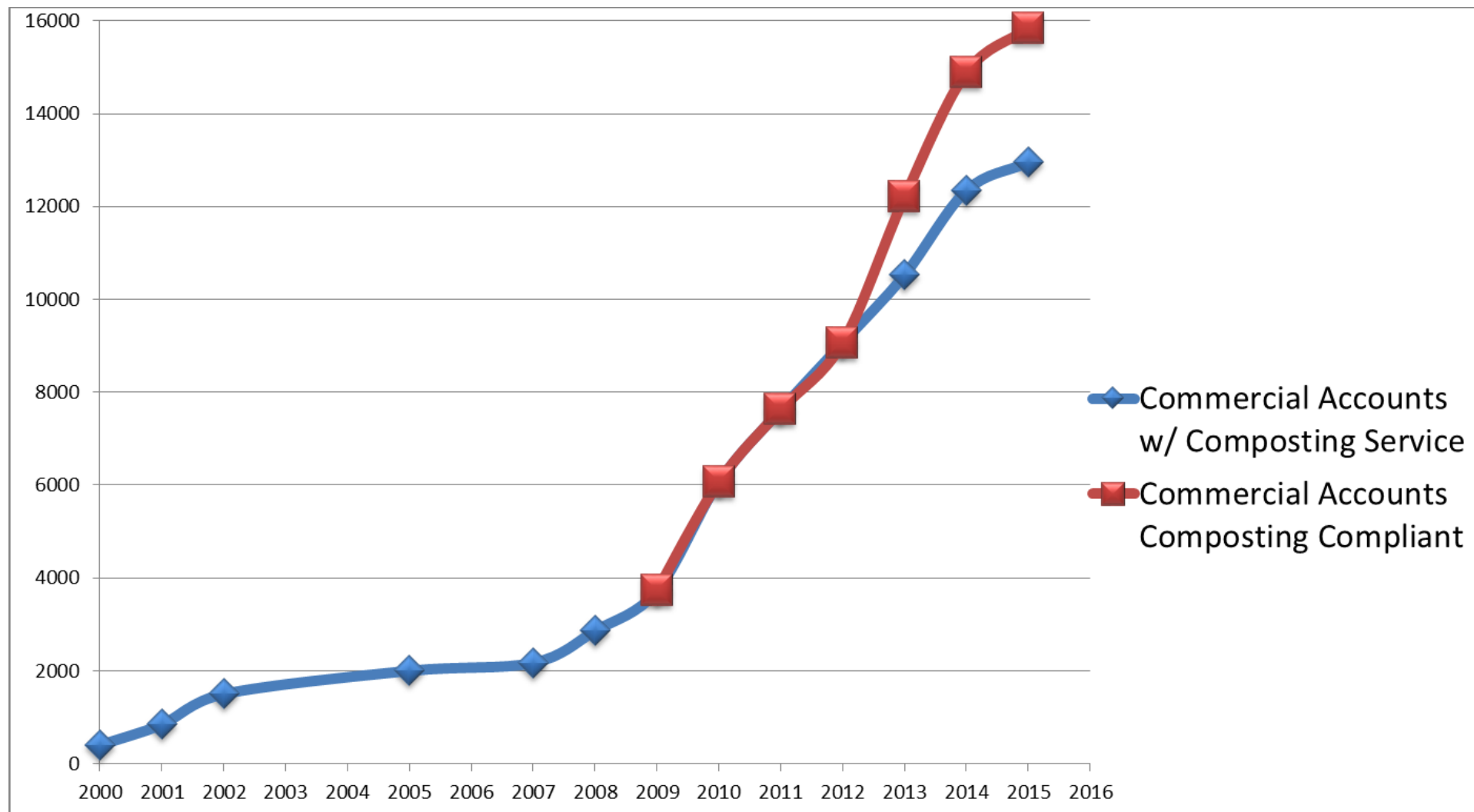
Apartment Buildings Composting



Multi Family (6+ units) with Composting Service



Commercial Composting Service Compliance



Mandatory Composting & Recycling



99% of all locations
city-wide are
composting and
recycling service
compliant



Residential Sector Results



- 350,000 households (~150K SF & 200K MF)
- 8760 apartment buildings (6+ units)
- 99+% have recycling
- 99+% have composting



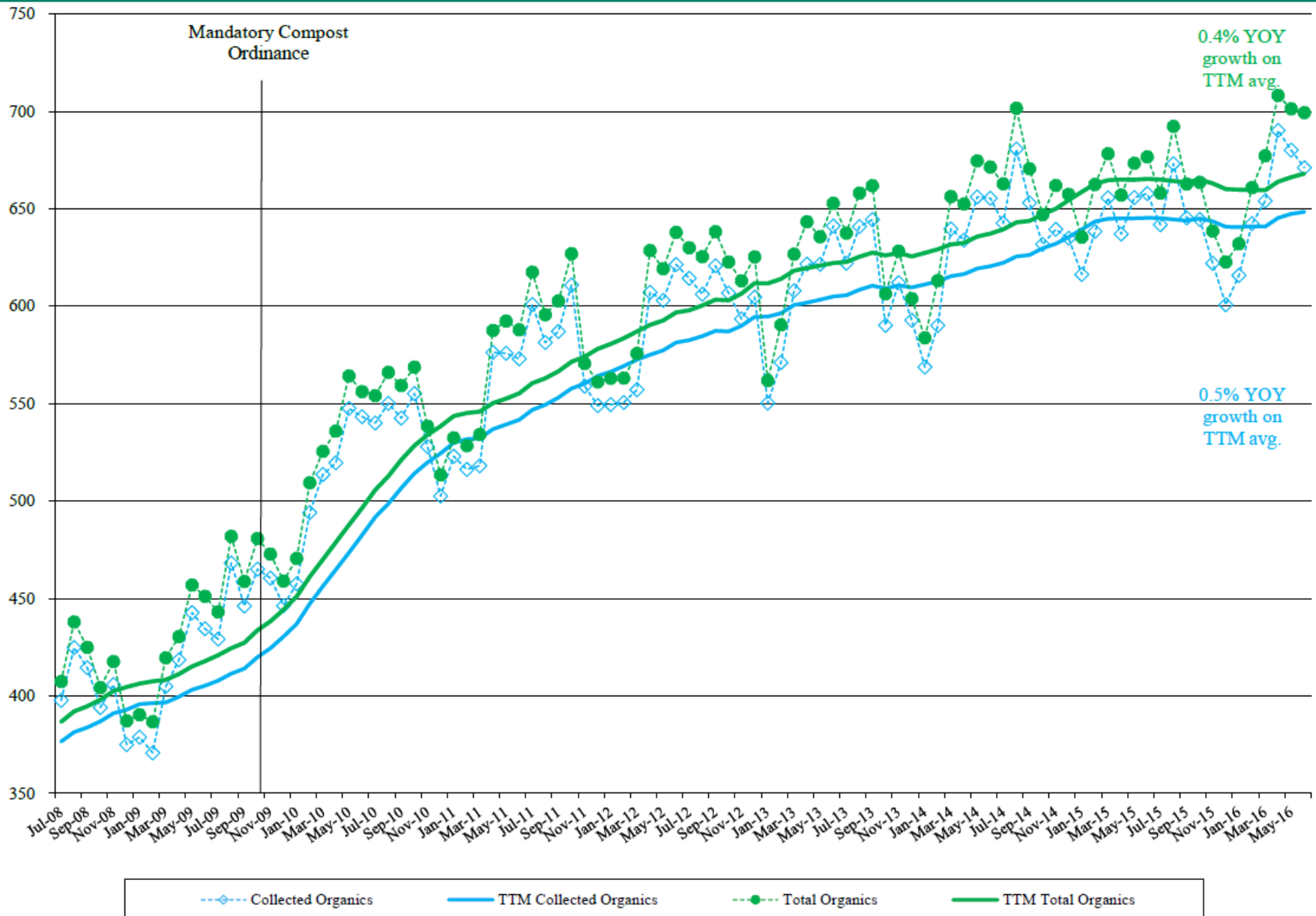


Commercial Sector Results

- ~90,000 businesses
- 16,160 service accounts
- 99% **recycling** compliant
- 99% **composting** compliant



Composting Tons Collected



Lessons Learned



- Provide Convenient Comprehensive Service
- Do Outreach and Multilingual Training
- Give Financial Incentives
- Get Management Commitment
- Mandate Service and Separation
- Audit and Give Direct Feedback
- Increase Compliance with Financial Penalties
- Keep on Persisting

Next Steps



- More Outreach



- More Enforcement, Fine Tenants



- Shift from Trash to Recycling



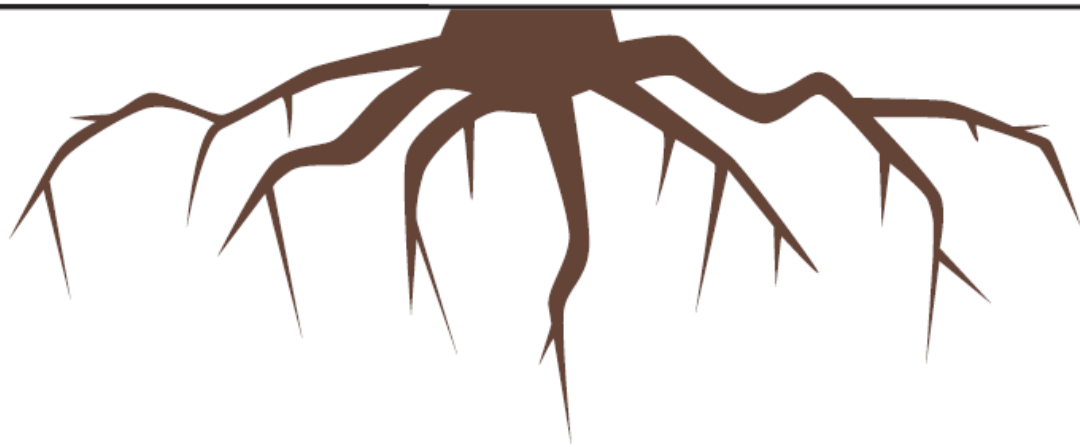
- Process Trash to Recover Organics



San Francisco Climate Action Strategy



0 50 100



The four main strategies to reach our climate goals:

- Zero** waste to landfill
- 50%** of trips taken by sustainable modes
- 100%** renewable energy
- Protect** and grow the carbon sink



Thank You!

Jack Macy

Zero Waste Commercial Senior Coordinator

Jack.macy@sfgov.org

415-355-3751



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