

Final Presentation



Sunnyvale

Solid Waste Program Updates

Bailey Hall & Deepti Jain
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Sunnyvale

Solid Waste comprises of:



Zero Waste Program



SMaRT Station



Closed Landfill

Zero Waste Program:

- SB1383 Implementation
 - ◆ Multi-Family Food Scraps Rollout Update
 - ◆ 2023 Commercial Food Scraps Rollout
- Reusable Foodware Pilot Project
- Yard Trimming Cart Swap
- MFD Bulky Item Pilot

SB 1383

California's Short-Lived Climate Pollutants Law

The image is a screenshot of the CalRecycle website's main banner. At the top is a dark green navigation bar with the CA.GOV logo, social media icons, a 'Contact Us' link, a 'Select Language' dropdown, and a 'Settings' gear icon. Below this is a lighter green bar with the CalRecycle logo and a series of icons for 'Programs', 'Recycle', 'Government', 'Business', 'Get Involved', 'News', 'About Us', 'Help', and a search icon. The main banner features a cartoon turtle on the left. The title 'Join California's Climate Food Fight!' is in large blue text. The banner is split into two panels. The left panel has an orange background and shows a landfill with a 'LANDFILL' sign and a fire, with the text 'Tossing food scraps and yard waste into the trash heats our climate.' The right panel has a blue background and shows a 'COMPOST' bag, an 'ENERGY' meter, and a 'GREEN BIN' with the text 'Instead, recycle food scraps and yard waste into green products.' A small mobile menu icon is visible on the far right.

CA.GOV

Contact Us

Select Language

Settings

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CalRecycle

Programs

Recycle

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Business

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Join California's Climate Food Fight!

Tossing food scraps and yard waste into the trash heats our climate.

LANDFILL

Instead, recycle food scraps and yard waste into green products.

COMPOST

ENERGY

GREEN BIN

SB 1383

California's Short-Lived Climate Pollutants Law

Reduce organics (food scraps/yard trimmings) in landfill

- Goal is to reduce methane
 - ◆ 20% of state's methane comes from organic material in landfills
- Reduce organic waste disposal 75% by 2025
- Increase rescued food recovery 20% by 2025
- State enforcement begins 2024

Multi-Family Progress To Date



- Last year each unit received outreach kit on their doorstep
- Goal of 3,000 tons/year; currently closer to 900 tons/year
- Recently sent postcard to all units, email to property managers
- Offer presentations, tabling, email templates, flyers, signs
- Will try new methods: digital ads, kid's art contest (winning designs on trucks!)

Commercial Sector

- Early adopters recycled food scraps as early as 2011
- Currently, 391 Sunnyvale businesses are SB1383 compliant
 - ◆ Routed for food scraps/yard trimmings
 - ◆ Landscaper hauls offsite
 - ◆ De minimis Waiver (generating <20 gal.)
- GOAL: Onboard 1,177 businesses by end of 2023



Edible Food Recovery – 2022 Summary

- Joint Venture Silicon Valley coordinating food rescue for Santa Clara County
- 167 commercial food generators in SV
- **568,027 lbs.** of edible food recovered!



New Commercial Outreach

FoodCycle FOOD SCRAP RECYCLING

How to Setup a Successful Program

Employee Training is Key

It may seem complicated to set up a food scraps recycling program, but these simple steps will show your staff how. Use the helpful tips and talking points in this training guide to make learning quick and easy.

1

Plan Your Staff Training

- Set up bins and signage. See page 2 for proper setup. Download and print signs from sswr.com.
- Include all staff that handle food disposal.
- Train on location. Use existing bins in your staff's normal work space. Bring up examples of food scraps staff handle regularly.
- Identify a lead on each shift who can answer questions and train new staff.



2

Explain Why Food Scraps Recycling Matters

- Food scraps are rich in nutrients that can be put to good use, but only if they're separated from garbage. Sunnyvale food scraps can become clean energy, fertilizer or animal feed ingredient.
- It's state law – SB 1383 requires it.



Need Help?

Call Utilities Customer Service at 408-730-7400 for help with billing, missed pick-ups, collection days or landscaped material (requires a separate bin)

Call City of Sunnyvale Zero Waste Coordinator at 408-730-7262 for free tools, resources and general problem solving

Watch how-to videos at [Youtube.com/SunnyvaleRecycling](https://www.youtube.com/SunnyvaleRecycling)



3

Show Employees How to Setup and Use the Program

How to Set Up Bins Correctly



- **Make it convenient.** Place bins in convenient locations for staff use.
- **Use colored bins.** Color-code the bins:
 - Brown – Food Scraps
 - Blue – Recycling
 - Black or Gray – Garbage
- **Keep it clean.** Use clear bags for all bins so it is easy to see and remove contaminants.
- **Post signage from website.** Post signage clearly above or on the sides of each bin. Go to sswr.com/organics-collection to download a poster.

How to Maintain Bins Correctly

- **Don't overfill bags.** We recommend using smaller bins and bags. Food scraps are heavy!
- **Knot it.** Tie a knot to close each bag – no loose food in containers.
- **Keep lids closed.** Close external bin lids to keep litter and odors to a minimum.
- **Take full bags to outdoor food scrap collection containers.**

Use Bins Correctly

✓ YES

- All food trimmings and plate scrapings, including meats and shellfish, eggs and dairy, fruits, vegetables and bakery items.
- Coffee filters and tea bags.
- Pits, peels, and shells.
- Spoiled or moldy food.



✗ NO THANKS

- Liquids (strain soups, solids can go into the food bin).
- Grease/oil (small amounts are accepted, large amounts need to be collected by waste-oil collection service).
- Glass, metal, plastic or other recyclables.
- Garbage, plastic gloves, foil wrappers, plastic straws, plastic stir-sticks, produce twist-ties, produce stickers, or other small contaminants.
- Paper products such as napkins, plates, cups, bowls (not even the compostable ones).



4

Explain What Happens if the Food Scraps Bin Gets Contaminated

- **First time.** A warning will be issued after the first instance of contamination found.
- **Second time.** The driver will refuse to empty the bin until contaminants are removed and you'll pay a return trip fee to have it emptied.

New Commercial Outreach

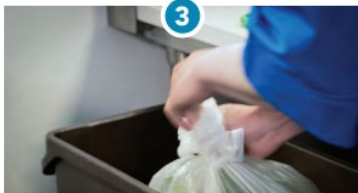
FoodCycle: Kitchen Prep Areas



1
Line bin with clear plastic bag.



2
Put food scraps into the bin.

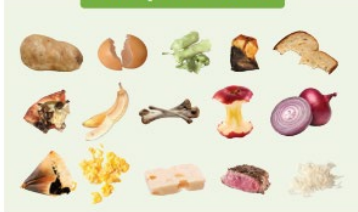


3
Tie bags before disposal.



4
Place tied bag in the Food Scraps Bin.

Accepted Items



Unwanted Items



Remove all packaging and keep unwanted items out of the bin.
No plastic, glass, grease, liquids, gloves, foil.

Need Help?

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FoodCycle: Break Rooms



After you prep your meal, snack, coffee or tea.

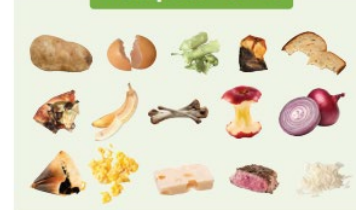


After you eat.



When you clean out the fridge.

Accepted Items



Unwanted Items



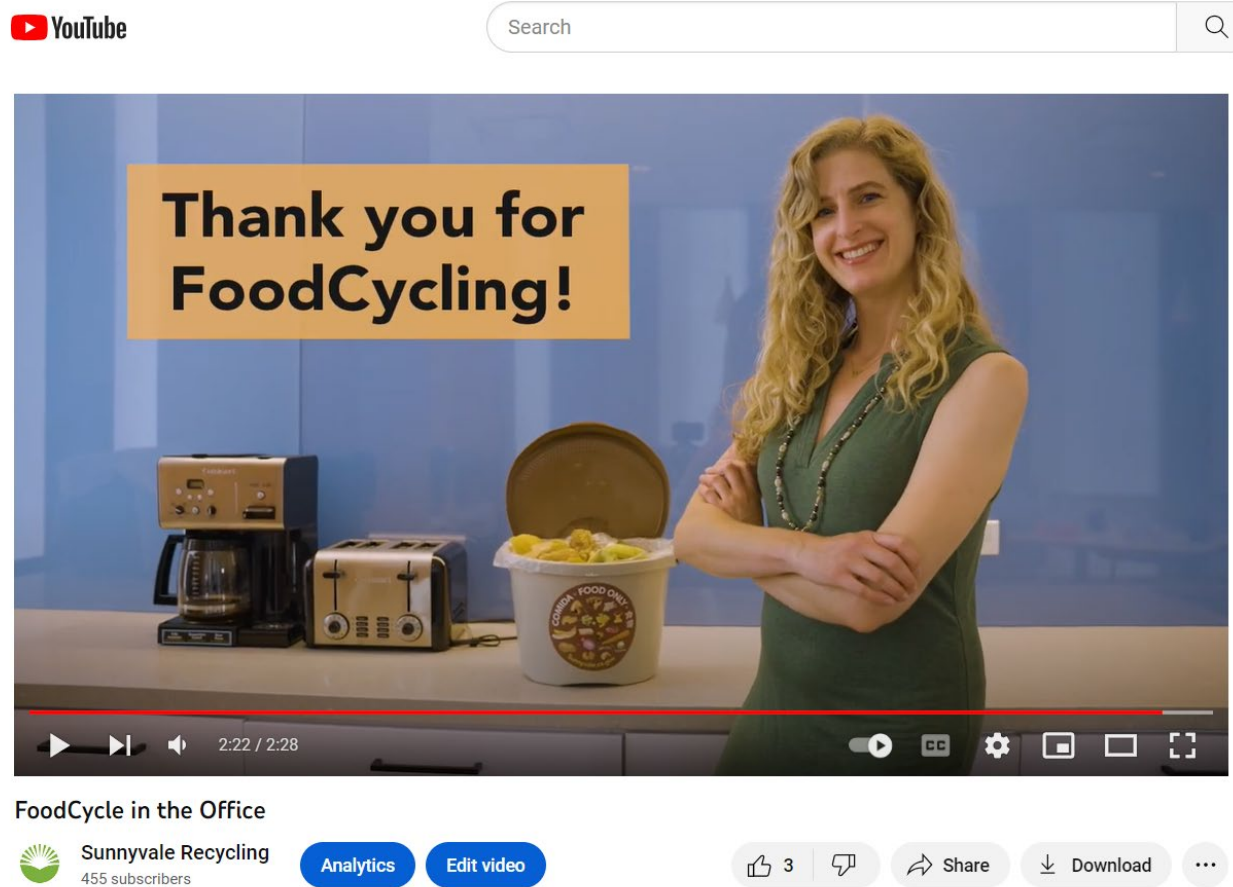
Remove all packaging and keep unwanted items out of the bin.
No plastic, glass, grease, liquids, gloves, foil.

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New Commercial Outreach



YouTube.com/SunnyvaleRecycling

Reusable Foodware Pilot Project

- City working with Environmental Innovations to develop pilot program
- Surveyed restaurants on disposable vs. reusable foodware
- 20 participating restaurants get mini-grant
 - ◆ Replace disposable foodware w/ reusables
 - ◆ Replace with compostable foodware
 - ◆ Test a reusable to-go program
- **Ultimate goal:** Propose an ordinance to reduce single-use disposable foodware



Yard Trimmings Cart Swap



- Yard trimmings carts across the City reached the end of their warranty
 - ◆ By removing them now, we can have the plastic recycled. Waiting too long after warranty means they'd go to landfill
- In May, all carts south of El Camino Real were replaced over two-week period
- Second half (north of El Camino) planned for Spring 2024

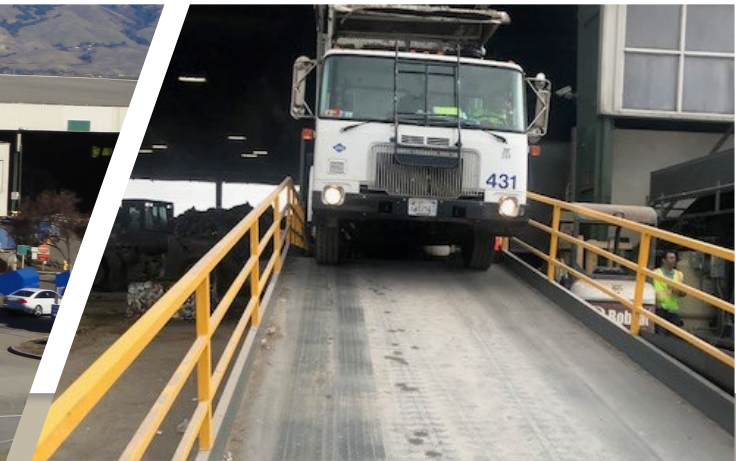
MFD Bulky Item Pilot

- No bulky pickup program for MFDs currently
- Partnering with Specialty on a pilot
- Pilot period April - June 2024
- Finalizing the details (pilot locations, allowed items, pick up day etc.)





SMaRT Station®



What you'll learn:

- Processing @ Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®)
- How things are going so far
- Future



SMaRT Station Functions



Mixed Waste

- Process mixed waste to recover recyclables
- Residue is sent to Kirby landfill



Paper

- Processed from residential dual stream
- Fiber and OCC bales sent to market



Containers

- Processed from residential dual stream
- Aluminum, PET, HDPE bales sent to market



Food Scraps

- Converted to food mash
- Sent to SAFE for electricity generation



Yard Trimmings

- Chipped into smaller pieces
- Sent to Z-Best in Gilroy, becomes organic compost



Construction & Demolition

- Sorted on tip floor and clean wood and concrete recycled

Processing

- Operational since 1993
- Designed/ permitted to handle up to 1500 tons per day
- 600 tons/day
- MSW Diversion rate – 36-38%
- Facility Diversion rate ~48-50%



Source Separated Organics/Food Scraps (SSO) Processing



Operational
since 2018 –

- Designed/
permitted to
handle up to
99 tons per
day
- Diversion Goal
– 70%

CRV/Recycling Center and Other Services



- Organic compost/
mulch pick-up



Document
shredding events



Drop-
off

- Electronic waste
- Batteries
- Recyclables
- Paint
- Food scraps
- 1 lb. gas cylinders

SSO Pre-Processing @ SMaRT

Dumped into a hopper

Large contaminants are manually removed

Food scraps are shredded using augers

Goes through bio-press to screen to poly tanks





Organics Grant Award

Composting and
Anaerobic Digestion Project

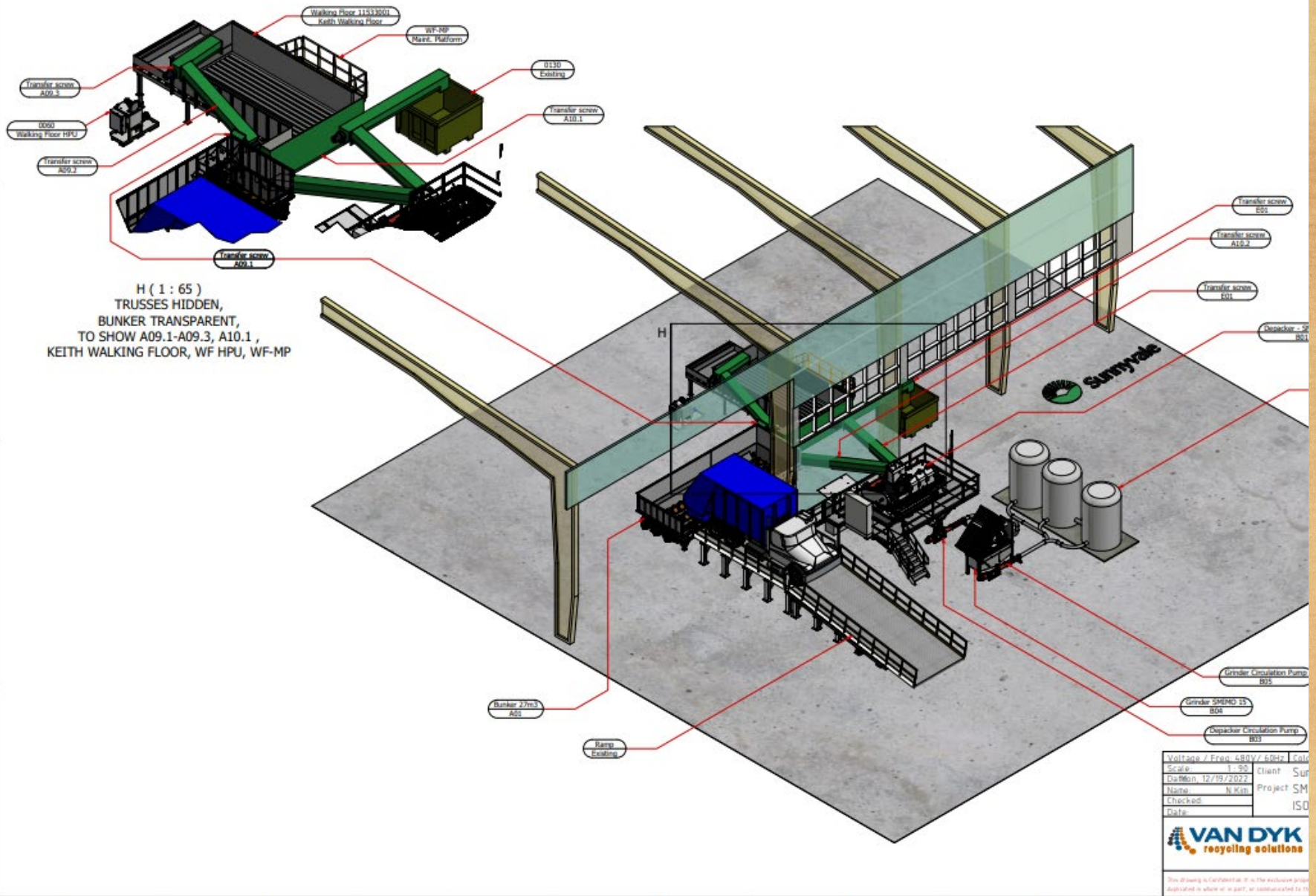
- \$3 million award
- 26,196 tons diverted (projected)
- 12,500 trash truck miles/yr. reduced (projected)



Sunnyvale



CalRecycle \$3M Organic Grant Recipient FY 21-22





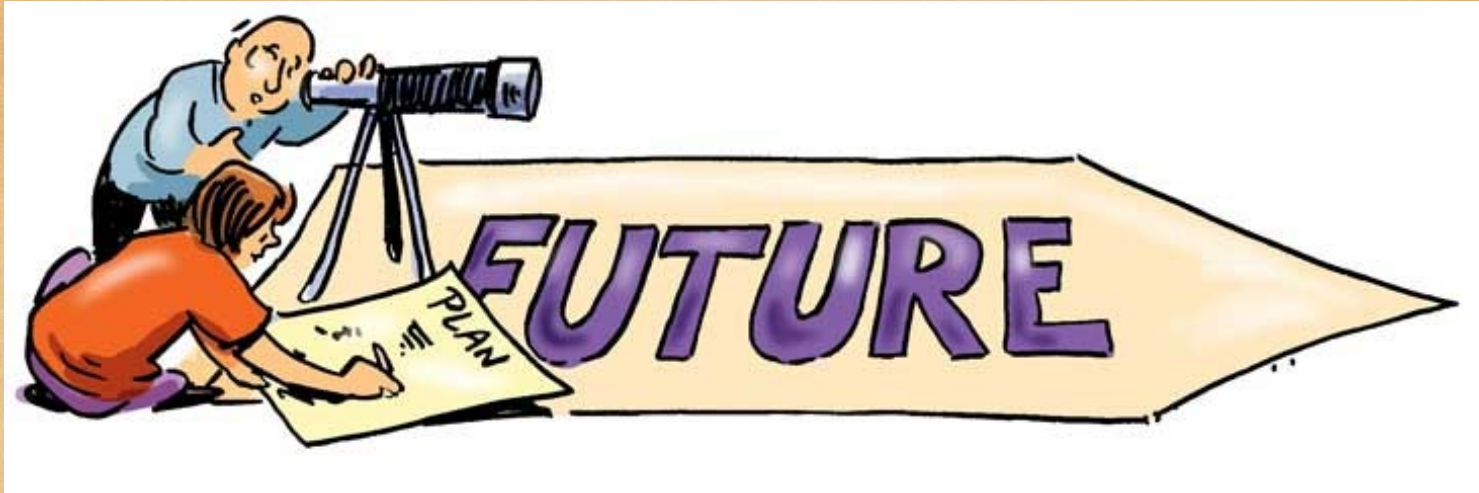
SMIMO Depackaging Videos



smicon

Outcome

- Increased processing speed
- More material handling and storing capacity
- Percentage of recovered $<1/8$ " organics = 99%
- Clean and dry residue
- Closed loop system



SMaRT NextGen & Facility upgrades:

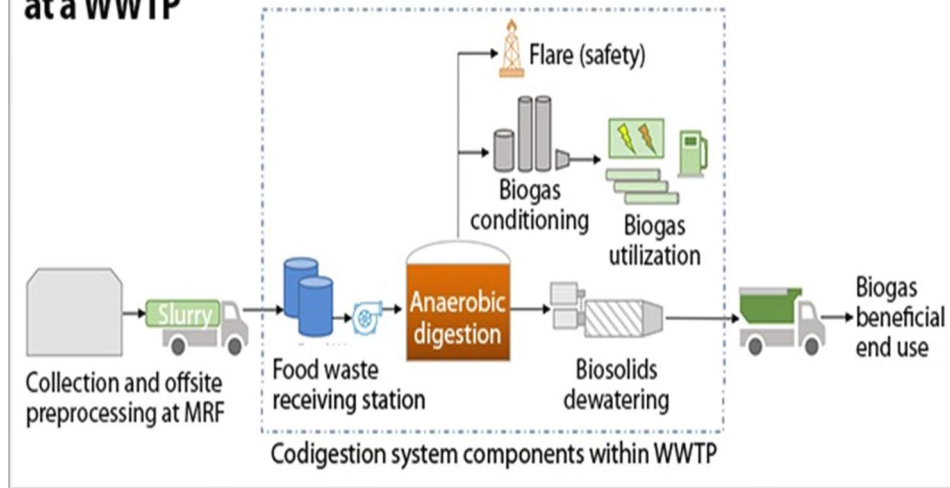
- MSW and Recyclables equipment replacement
- Tip Floor resurfacing
- Electrifying our fleet - Forklift, roll-off truck, sweeper, hybrid excavator
- Solar panels

Future - Organics to Energy – 2026/27

- Landfill gas production decreasing (landfill closed in 1992)
- Energy demand increasing –new primary/secondary treatment facility
- Technology to blend food waste with the solids generated at the Plant before digestion.
- Sufficient digester capacity
- **6-month Pilot Study**

Future - Organics to Energy – 2026/27

Figure 2. Key Processes required for food waste codigestion at a WWTP



- Landfill gas production decreasing (landfill closed -1992)
- Energy demand increasing –new primary/secondary treatment facility

- Sufficient digester capacity
- **6-month Pilot Study**
 - 35% increase in digester gas
 - 1 wet ton food scraps= 117kWh of energy
 - Improvements – Upgrade Co-gen Engines, excess ammonia removal, and solids thickening process modifications.
- Needed Upgrades = \$20M (2021)

Co-Benefits



- SB1383 procurement requirement
- GHG emission reduction
- Less Transportation Cost/Tip Fee
- Renewable energy source
- Less dependency on PG&E
- Perfect candidate for grants

Questions

Contact Information

Bailey Hall
Environmental Programs Specialist II
408-730-7782
bhall@sunnyvale.ca.gov

Deepti Jain
Environmental Programs Manager
408-730-7791
djain@sunnyvale.ca.gov

