

Reimagining Organic Waste



April 25, 2019

Attendees



Monterey County Sustainability Working Group



Formed to network and share current, successful sustainability efforts among agricultural producers and processors in the Central Coast region.

**“Bringing the produce industry together today
to prepare for tomorrow”**

Planning Group



Producing Sustainable Solutions



MISIONERO®



Turning Waste Into Resources




Cold Valley Farms



Take Action Now

1. Rename “Organic Waste”
2. Remove Contamination
3. Measure and Characterize

Goals for Today

- 
1. Understand current infrastructure and regulations
 2. Build partnerships to solve problems
 3. Identify what we can start doing now

Thank You to Our Sponsors



Thank You CSUMB @ Salinas City Center



Zero Waste Event



REPUBLIC
SERVICES



Today's Agenda

10:10 AM – Welcoming Remarks by Nikki Rodoni, Measure to Improve, LLC

- Session 1 -

10:20 – Hank Brady, SB1383 Manager, CalRecycle

10:40 – Melissa Kendrick, Executive Director, Food Bank Monterey County

10:55 – Patrick Mathews, General Manager, Salinas Valley Recycles

11:15 – Tim Flanagan, General Manager, MRWMD

11:30 – Keith Day, Owner, Gabilan Ag Services

11:40 – Q&A Panel Session with Presenters

12:00 – Buffet Lunch Begins

- Session 2 -

Poll – What's in a Name?

Identify alternative name for “organic waste” or “culls” that is positive and implies real value

12:30 – Speed Solution Presentations (5 minutes each)

Dr. Sara Pace, UC Davis, Department of Food Science and Technology

Brian Curtis, CEO, Concentric Power

Dan Morash, Founder, California Safe Soil

1:00 – Meeting Closes

Hank Brady



SB 1383 Manager, CalRecycle

[SB1383 Intro](#)

SB 1383

Reducing Short-Lived Climate Pollutants in California

An Overview of How California's
Organic Waste Recycling Laws
Will Impact The Produce Industry

Hank Brady
CalRecycle



CALIFORNIA'S CLIMATE STRATEGY



VISION

Reducing Greenhouse Gas Emissions
to 40% Below 1990 Levels by 2030

GOALS



50%
renewable
electricity



50%
reduction
in petroleum
use in vehicles



Double energy
efficiency savings
at existing buildings



Carbon
sequestration
in the land base



Reduced
short-lived
climate pollutants

Safeguard
California



ORGANIC WASTE REDUCTIONS



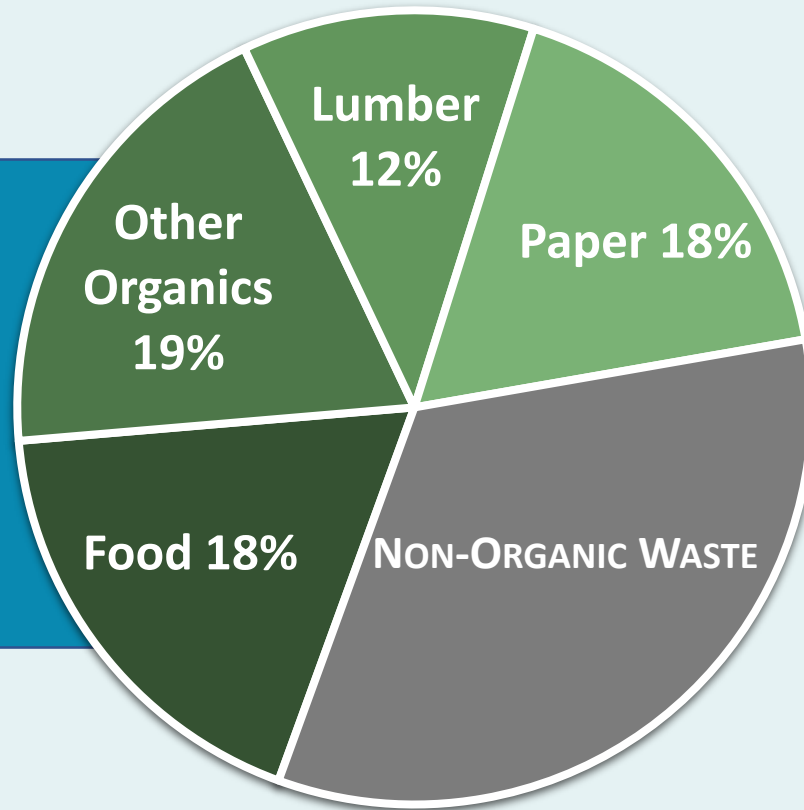
CalRecycle

- Reduce Organic Waste Disposal
- Recover Edible Food from Waste Stream
- Reduce Methane Emissions

ORGANIC WASTE IS THE LARGEST WASTE STREAM IN CALIFORNIA

CALIFORNIA DISPOSES
**APPROXIMATELY
23 MILLION TONS**
OF ORGANIC WASTE
EVERY YEAR

*THAT'S TWO-THIRDS
OF OUR WASTE
STREAM!*



IN CALIFORNIA, MILLIONS ARE
FOOD INSECURE



**1 IN 8 CALIFORNIANS
1 IN 5 CHILDREN**

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

SB 1383 REQUIREMENTS

2020

50 PERCENT REDUCTION IN LANDFILLED ORGANIC WASTE
(11.5 Million Tons Allowed Organic Waste Disposal)

2022

REGULATIONS TAKE EFFECT

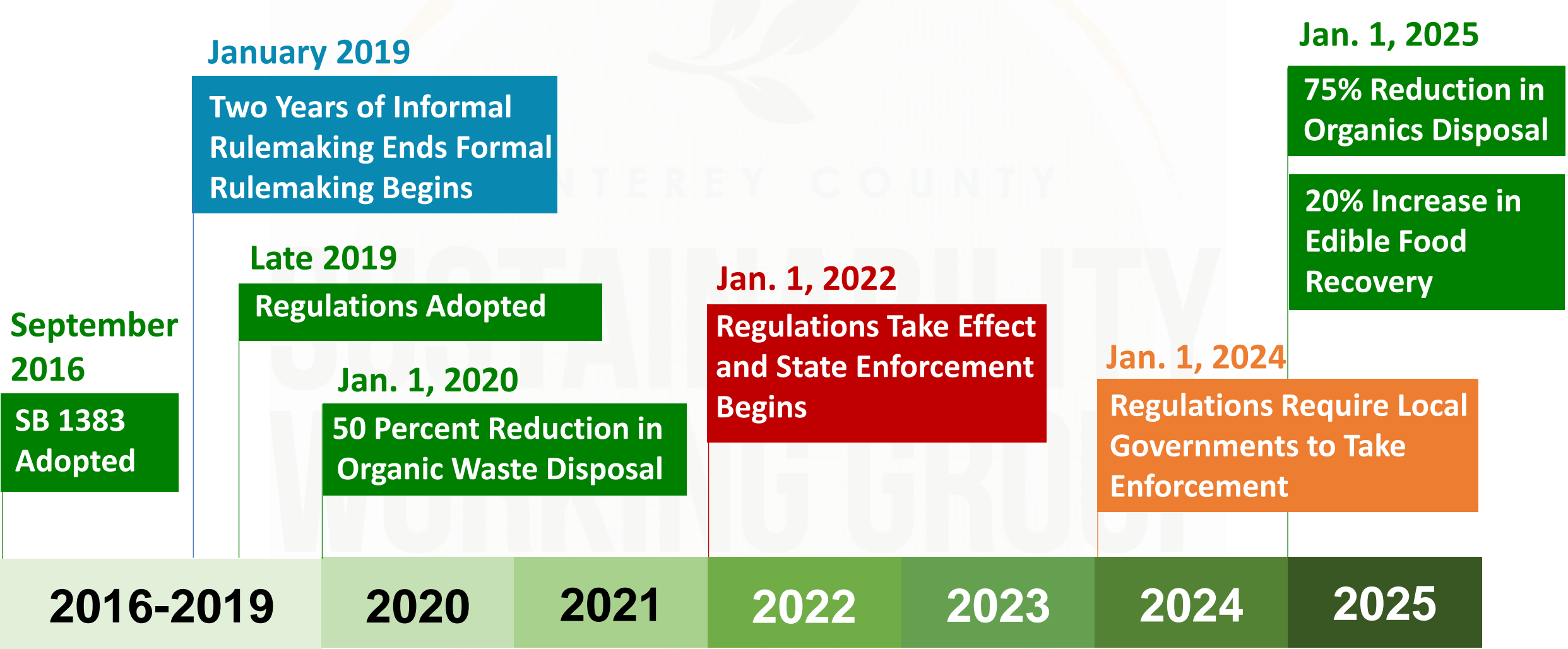
2025

75 PERCENT REDUCTION IN LANDFILLED ORGANIC WASTE
(5.7 Million Tons Allowed Organic Waste Disposal)

2025

20 PERCENT INCREASE IN RECOVERY OF CURRENTLY
DISPOSED EDIBLE FOOD

SB 1383 KEY IMPLEMENTATION DATES



ORGANIC WASTE RECYCLING INFRASTRUCTURE



SB 1383 Requires 50-100
New or Expanded
Organic Waste Recycling Facilities



Recovery

Recycling

Composting

In-Vessel
Digestion

Biomass
Conversion

Soil
Amendments at
Landfills*

Land
Application*

Animal Feed

Food Recovery

Section 18983.2
Approved
Technologies

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

STRATEGIES AND REGULATED ENTITIES



ORGANIC WASTE RECYCLING REQUIREMENTS



IMPACTS TO PACKING HOUSES AND PRODUCE PROCESSORS



Collect and Recycle Organics

- Subscribe to a Collection Service That Recycles Your Organics
- Self Haul Your Organics to a Recycling Facility/Activity

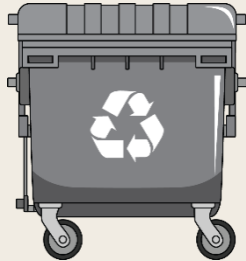
Educate Employees & Reduce Contamination

- Educate Employees Regarding Your Organics Recycling Service and Provide Appropriate Containers and Signage
- Prohibit Contamination And Disposal of Organics

Downstream Cleanliness Standards

- Jurisdiction Contamination Monitoring Requirements
- Jurisdiction Enforcement Requirements
- Solid Waste Facility Standards

COLLECTION CLEANLINESS STANDARDS



INSPECTION AND ENFORCEMENT REQUIREMENTS

Jurisdiction Contamination Monitoring



- Monitor And Take Actions to Reduce Contamination
- Issue Penalties for Non-compliance (Failure to Subscribe to Service)
- May Charge Fees For Contamination

Facility Contamination Monitoring & Recovery Efficiency



Facility Contamination Standards

- Contamination Load Checks For Incoming Trucks
- Intermediary processing Incompatible Material Limits = 10% Contaminants (e.g. plastic, metal glass)

Total Recovery Efficiency

- Above 75% = Reduced Requirements
- Below 75% = Enhanced Requirements

EDIBLE FOOD RECOVERY REQUIREMENTS



TIER ONE (STARTS 2022)



- **Supermarkets**
- **Grocery stores**
- **Wholesale food markets**
- **Food Distributors**

Entities Engaged in Providing Food Services to Institutional, Governmental, Commercial, or Industrial Locations

COMMERCIAL EDIBLE FOOD GENERATOR REQUIREMENTS

Edible food generators shall arrange for their edible food that would otherwise be disposed to be recovered for human consumption.

- Contracting with food recovery organizations or food recovery services that will collect their edible food.
- Self-hauling edible food to a food recovery organization.

RECORDKEEPING REQUIREMENTS FOR COMMERCIAL GENERATORS

Commercial Generators Shall Keep the Following Records

Contact Information for Food Recovery Organizations and Services

Types of Food Each Food Recovery Organization or Service will Collect

Contract, MOU, or Other Documentation of Arrangement

Schedules for Food Recovery Deliveries or Collections

Quantity of Food Donated in Pounds (or Alternative Metric)

SB 1383 IN ACTION

JURISDICTION REQUIREMENTS



**Monitor Compliance and
Conduct Enforcement**

INSPECTION AND ENFORCEMENT REQUIREMENTS

Ordinance
2022



Adopt an Ordinance
(Enforceable Mechanism)
Including
Enforcement

Compliance
Monitoring &
Education
2022-2024



Annual Compliance
Reviews, Route
Reviews, Inspections

Educate Violators

Compliance
Monitoring &
Enforcement
2024



Annual Compliance
Reviews, Route
Reviews, Inspections

Notice of Violations,
And Penalties for
Violators



STATE ROLE



CALRECYCLE OVERSIGHT (BEGINS IN 2022)



Oversee and Monitor for Compliance

- Jurisdiction Review
- Conduct joint inspections with jurisdictions



Enforcement

- Issue Notices of Violation
- Initiate Formal Enforcement Actions



Other Actions

- Education and Outreach
- Reduction of Regulatory Barriers
- Grants and Funding (limited)



<http://www.calrecycle.ca.gov/Listservs/Subscribe.aspx?ListID=152>



<http://www.calrecycle.ca.gov/Climate/SLCP>



Hank Brady
Hank.Brady@CalRecycle.ca.gov

Current Solution Providers



Melissa Kendrick
Executive Director
Food Bank Monterey



Patrick Mathews
General Manager
Salinas Valley Recycles



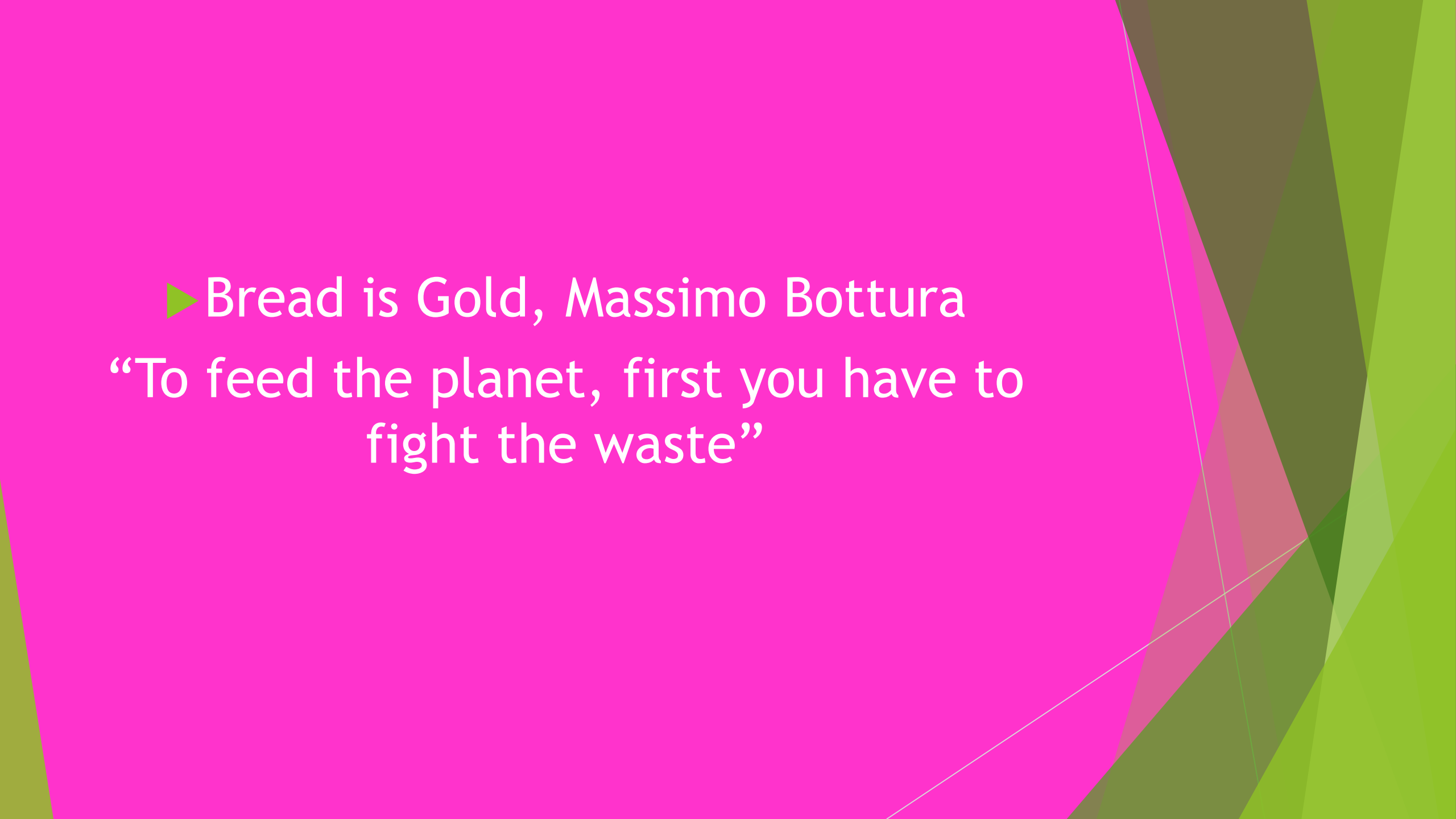
Tim Flanagan
General Manager
MRWMD



Keith Day
Owner
Gabilan Ag Services



Produce Diversion
Opportunities



► Bread is Gold, Massimo Bottura
“To feed the planet, first you have to
fight the waste”

By the numbers

- ❖ We Serve 1 in 5 adults and 1 in 4 children in Monterey County. At the Schools we serve over 33% of the students are homeless.
- ❖ Last year, we provided **11,405,164** pounds of food, or **9,166,667 meals** to over **1 in 5** residents and **1 in 4** children in Monterey County.
- ❖ We operate over 240 direct distribution sites each month
- ❖ We supply food to over 160 nonprofits
- ❖ We cover over 3200 square miles that compromise Monterey County. Much of this territory is officially classified as food deserts.

Opportunity

- ❖ Reducing food waste has a unique appeal because
 - ❖ it can simultaneously increase profits and efficiencies across the food system
 - ❖ help the 34% of the county residents that are food insecure access healthy food
 - ❖ protect our planet from the harmful environmental consequences associated with wasted food
 - ❖ address the Monterey County Climate Action Plan mandates, local goals and ordinances that reinforce or exceed state mandates such as AB341, which requires 75% waste diversion

New Facility

- ❖ Energy-saving fixtures, custom warehouse setup, new facility provides the foundation we need to uphold the utmost standards of sustainability, efficiency, and food safety in our acquisition and distribution practices.
 - ❖ 20,000 square feet of Cold Storage
 - ❖ 480 solar panels
 - ❖ 50,000 square feet of Warehouse Space
 - ❖ 8 Docks/ Refrigerated Fleet of Trucks
 - ❖ Non-Profit Shopping Area
 - ❖ Nutrition Center with Demo Kitchen
 - ❖ AIB Food Safety Certification
 - ❖ Inventory System

Protecting our Donor Partners

- ▶ Federal Bill Emerson Good Samaritan Food Donation Act
 - ▶ On October 1, 1996, President Clinton signed this act to encourage donation of food and grocery products to Food Banks for distribution to individuals in need.
 - ▶ This law:
 - ▶ Protects you from liability when you donate to a Food Bank
 - ▶ Protects you from civil and criminal liability should the product donated in good faith later cause harm to the recipient
 - ▶ Provides universal protection in all 50 States

Opportunities

- ❖ Standardize and clarify donation process to the Food Bank
- ❖ Implement a recognition system for businesses that demonstrate significant food donation best practices
- ❖ Expand federal tax incentives for produce donations
- ❖ Identify a Produce Waste Coordinator at each AG Company that Food Bank Ops can work with to maximize donations
- ❖ Establish a produce prevention advisory council to maximize produce recovery

Produce Diversion Programs Success

- ❖ We diverted over **6 million pounds** of fresh produce from landfills last year, providing it to struggling residents who would otherwise be unable to consume these crucial items due to cost.
- ❖ Plan to double this number in our new facility, this year alone.
- ❖ Our free farmers' markets (Kids Produce Markets, Senior Produce Markets) increased produce **distribution by 95% over the last two years** and this year we have expanded produce distributions targeting children, seniors, veterans and farmworkers.
- ❖ We provide exclusively fresh produce at over **75 countywide sites**.

Examples of Programs where Produce is Distributed

- ❖ The Emergency Food Assistance Program, 26 countywide sites. Serves 9,249 households, or 37,838 individuals per month
- ❖ The Agency Clearinghouse Program is our network of over 160 local nonprofits. They rely on us for 95% of the food they serve. Serves over 14,000 families/25,000 individuals per month
- ❖ Free Farmers Market where clients are invited to choose from an array of fresh fruits and vegetables. 12 countywide sites. Serves 7500 households per month.
- ❖ Farmworkers Mobile Produce Pantry delivers weekly fresh produce and other nutritious perishables directly to farmworkers during growing season. 10,000 per month
- ❖ Senior Produce Market provides weekly fresh produce to seniors in need on a year-round basis at 16 sites convenient to where seniors live and gather. 825 seniors weekly are served by this program.
- ❖ Youth Family Market is a year-round program that provides fresh produce to children at afterschool programs and Migrant HeadStart Program locations. 4000 students per month
- ❖ Kids N.O.W. (“Nutrition On Weekends”) takes place on Fridays after school, providing food bags, which contain items that address the unique nutritional requirements for growth and development, to children to take home over weekends. It operates at 6 school sites and serves over 2000 children in areas where 90% of children live in poverty and 33% are classified as homeless. We also operate this program at Hartnell, MPC, and CSUMB that serve 140, 100 and 290 students each month respectively.
- ❖ Breast Cancer Patient Food Assistance Program delivers weekly groceries to the homes of women in need who are undergoing treatment for breast cancer. Over 350 women have participated for time periods ranging from 3 to 6 months.

For More Information or to Schedule Donation
Pick-ups Please Contact:

Mike Santos /Ops Manager

831-776-1865

msantos@food4hungry.org



Solutions for Reimagining Organic Waste

Monterey County Sustainability Working Group
Reimagining Organics Event

April 25, 2019

SVR Facilities

Map of Drop-Off Facilities

-  SVSWA Service Area
-  Drop-Off Facility Location
-  **ABOP** Drop-Off Station for Antifreeze, Car Batteries, Used Motor Oil and Latex Paint





Johnson Canyon Landfill

Change Can be a Good Thing!



- Reducing Dependency on Single-Use Plastics, More Reuse!
- Creating More Local Markets for Compost
- Re-thinking the Global Supply Chain and Economy



Why Recycle?

- Preserves Landfill Space
- Saves Energy
- Reduces Pollution
- Saves Natural Resources
- Economic Benefits
- State Mandates:

- AB 939
- AB 341
- AB 1826
- SB 1383



Solutions for Organic Waste

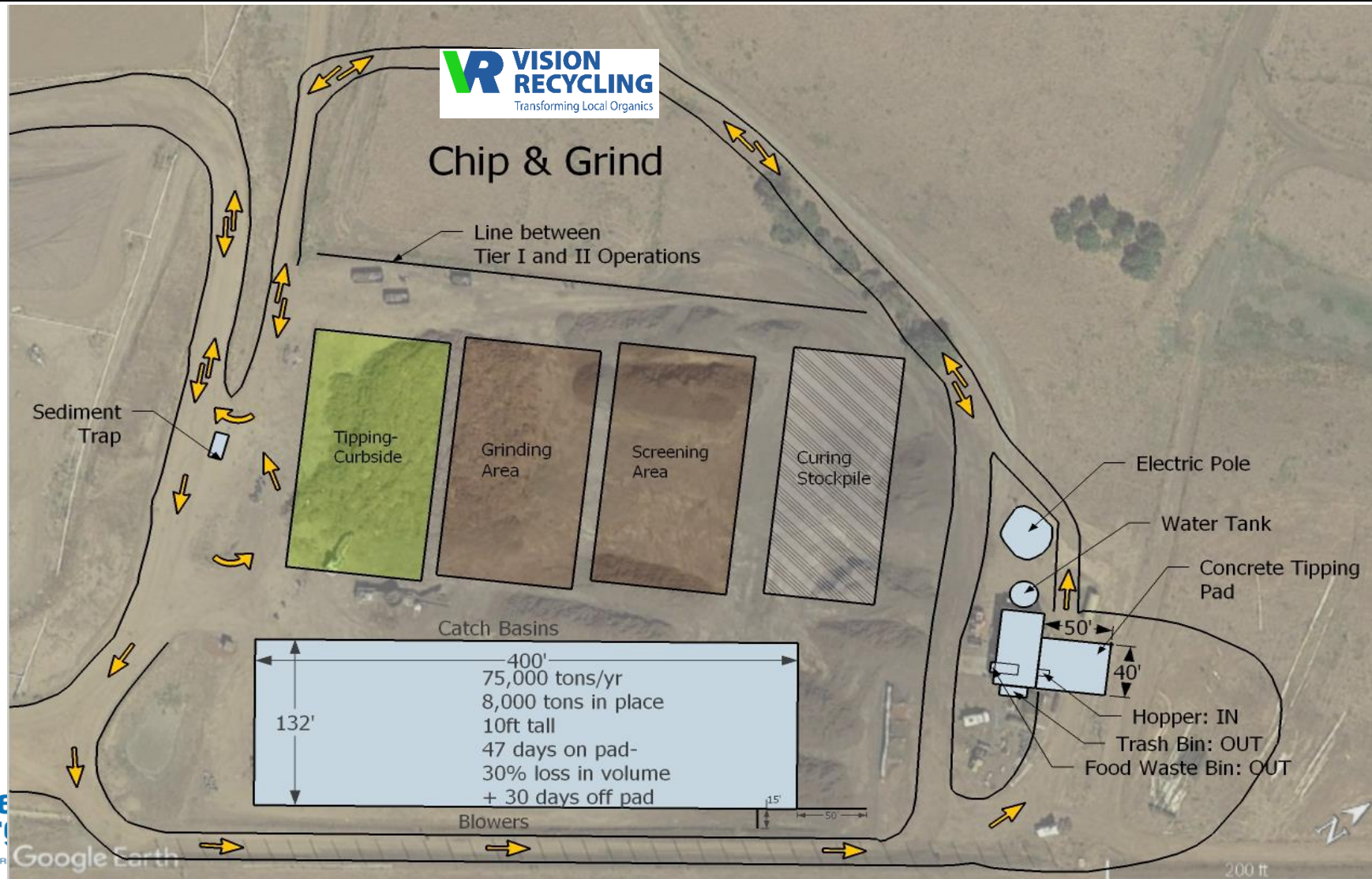


FOOD WASTE
COMPOSTING FACILITY



TRUCK & DE-PACKAGING
EQUIPMENT

Composting Facility



Permits, Permits & More Permits



Solid Waste Facility Permit
Revision (LEA)



Organics WDR -
Stormwater (RWQCB)



Air Board Permit (MBARD)



PG&E – We have Power!

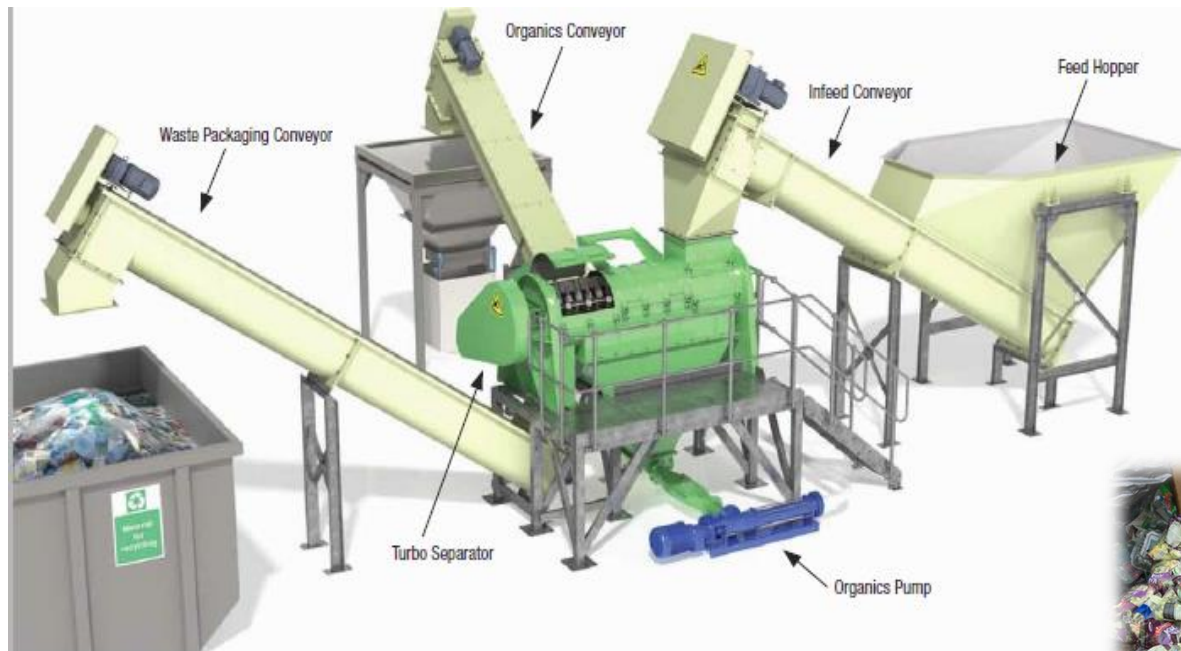
Managing Culls



Food Bank Refrigerated Truck



De-Packaging Equipment



Turbo Separator – T30

Packaged Produce – 33%





De-Packager Installation



De-Packaging Video

Clean, Bagged or Packaged Product





Clean, Boxed Product



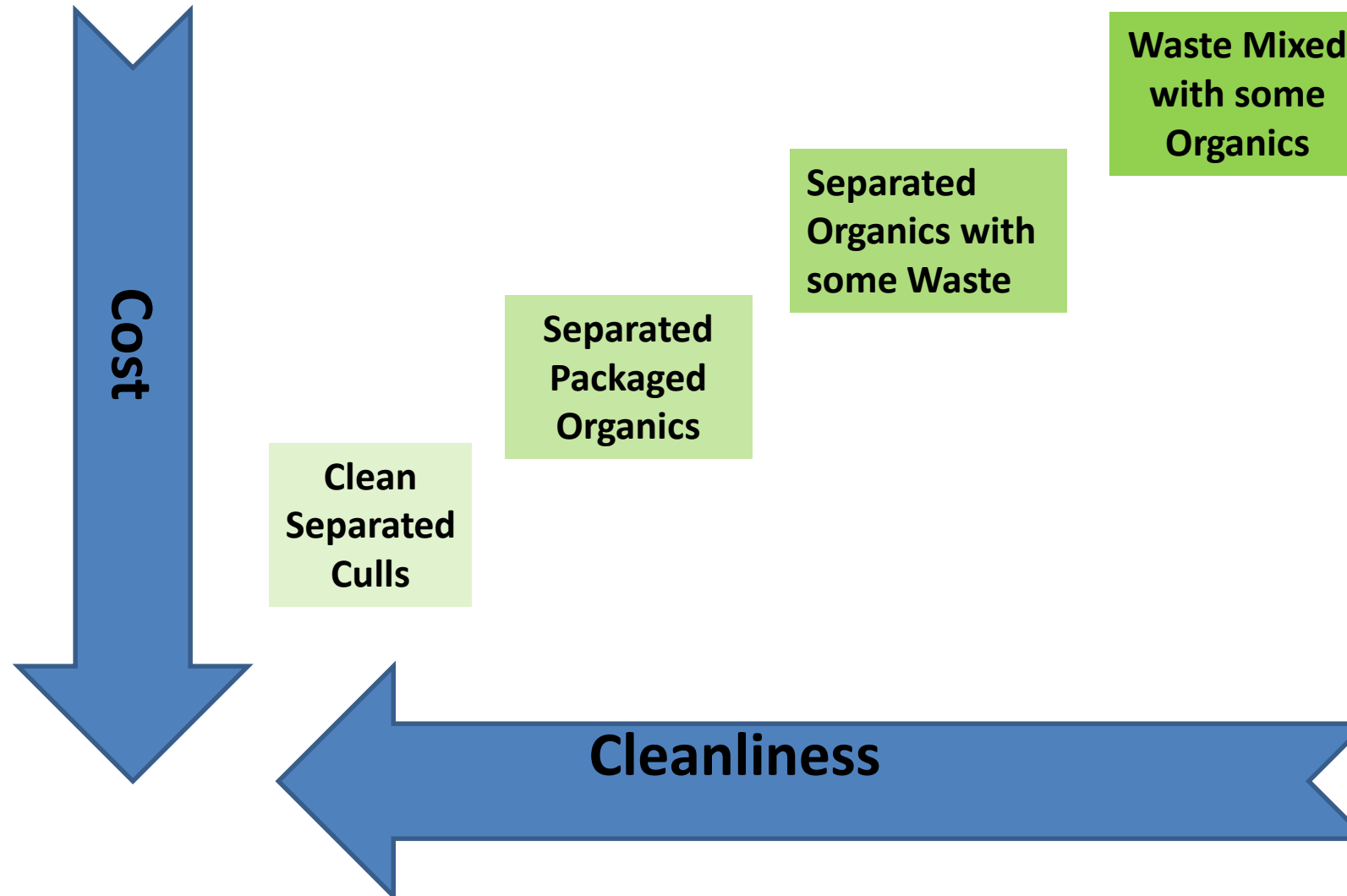


Contamination

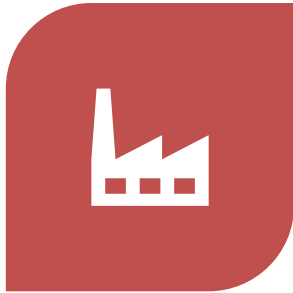


No Plastic Bag Tails!

COST vs. CLEANLINESS



Program Outreach



**COMMERCIAL AND
INDUSTRIAL COLLECTION**



EDIBLE FOOD RECOVERY



**RESIDENTIAL CURBSIDE
COLLECTION**

Questions/Comments?

Patrick Mathews or Mandy Brooks

(831) 775-3000

patrickm@svswa.org



facebook.com/SalinasValleyRecycles



twitter.com/SalinasValleyRecycles



www.SalinasValleyRecycles.org



Monterey Regional Waste Management District
Turning Waste into Resources

Reimagining Organic Waste In the Monterey County Produce Industry

April 25, 2019

Tim Flanagan, General Manager

tflanagan@mrwmd.org

831-264-6915



**RECYCLING IS CHANGING
IN MONTEREY COUNTY**

Monterey Regional Waste Management District



Turning Waste into Resources

- 68 Year History (formed in 1951)
- Publicly Owned/Operated
- \$35 Million Operating Budget
- Regional Reuse, Recycling, Composting & Disposal Facility
- 145 – Employees
- 9 - Appointed Board Members
- Serving Central Coast Region
(Monterey, Santa Cruz, & San Benito Counties)

Why Organics?



Greenhouse gas (GHG) emissions resulting from the decomposition of organic wastes in landfills have been identified as a significant source of emissions contributing to global climate change.

Mandatory recycling of organic waste is the next step toward achieving California's aggressive recycling and greenhouse gas (GHG) emission goals.

History of Composting at MRWMD

- 1985 Yard waste composting program begins. Today, more than 30,600 tons composted annually.
- 2004: Whole Foods and Asilomar request the MRWMD evaluate the feasibility of establishing a food scrap compost program
- 2007: Big Sur International Marathon and AT&T Pro AM request food scrap compost support as they seek to go “zero waste”
- 2008: Food scrap compost program begins utilizing aerobic process
- 2013: First Anaerobic Digester in California (AD 1.0) is commissioned at MRWMD
- 2018: Planning for AD 2.0 begins



Why Anaerobic Digestion?

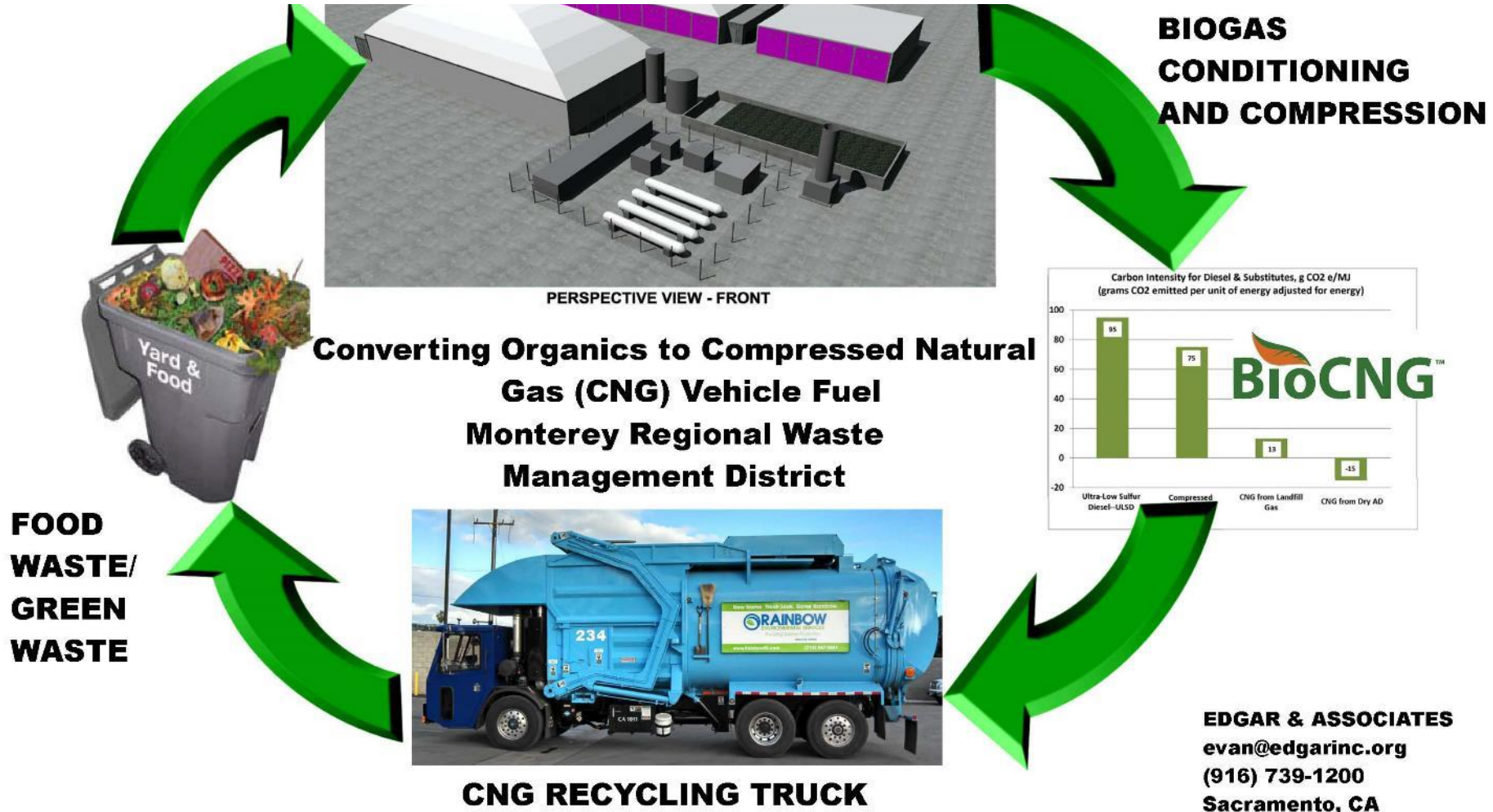


Anaerobic Digestion Pilot Project

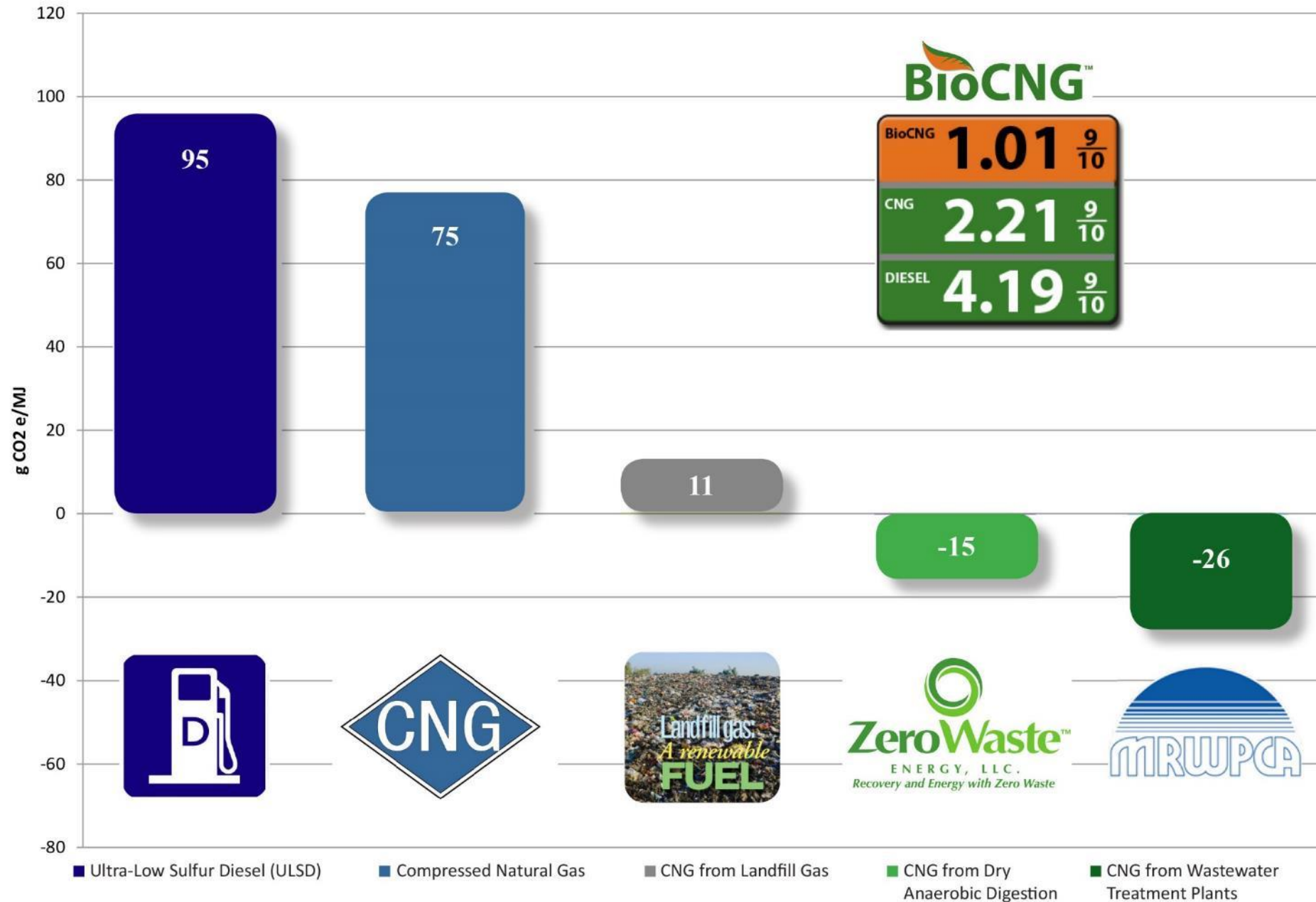
First Dry Anaerobic Digestion facility in California (5000 tons/year)



Why Anaerobic Digestion?



Carbon Intensity for Diesel & Substitues, grams CO2 emitted per unit of energy adjusted for energy (g CO2 e/MJ)



MRWMD CNG Vehicle Fueling and California Energy Commission Grant to Convert Biogas to CNG



Working Cooperatively – Planning for the Future

Turning Waste Into Resources

The Monterey Regional Waste Management District invites you to support these local businesses participating in our Organics to Energy program, turning yesterday's food scraps into today's energy, to grow tomorrow's food:

Monterey Alvarado Street Brewery & Grill Black Bear Diner Bon Appetit Café Trieste California Pizza Kitchen Captain N Stoker Carls Jr. Century Theater Chef Lee's Mandarin Restaurant Community Hospital Del Monte Beach Neighborhood Del Monte Grill Denny's Eureka Properties Gathering For Women Hostelling International Hyatt Regency Monterey Intercontinental The Clement Lallapalooza MHS Monterey Bay Aquarium Monterey Beach Hotel Monterey Marriott Monterey Accounts Presidio Accounts Portola Hotel & Spa Pro'Act Restaurant 1833 Whaling Station Whole Foods	Mission Ranch Restaurant Pajaro Valley Golf Club Pasadena County Club Quail Lodge Round Table Pizza - Castroville Santa Fe Grocery Starbucks - Carmel Starbucks - Prunedale	Pacific Grove American Tin Cannery Aqua Terra Asilomar Conference Center The Beach House at Lover's Point Beacon House Canterbury Woods City of Pacific Grove Eureka Group Inc. Fandango First Awakenings Foursome Development Giles Properties Grove Market Happy Girl Kitchen Company Il Vecchio La Mia Cucina Lighthouse Cinema Little Chicken House Marie Favaloro Max's Grill P A Country Club Associates Pacific Grove Farmer's Market Passion Fish Peppers Petra Restaurant Point Pinos Grill Red House Cafe Sea Breeze Inn and Cottages Starbucks Toadles Café Trader Joe's William Couey	La Morenita La Tortuga Restaurant Lucky Bamboo Mariscos Puerto Nuevo The Meatery Pacific Heights Plaza Round Table Pizza Santa Fe Foods Starbucks Val Strough Mazda/Subaru Zimaffan Bakery
Monterey County Bernardus Lodge Burger King - Castroville Carmel Unified School District Carmel Valley Manor Cornucopia Market Earthbound Farm The Haute Enchilada Highlands Inn Mid-Valley Shopping Center	Carmel Anton and Michel Basil Seasonal Dining Bruno's Market Carmel Bakery Carmel Belle Carmel Plaza Carmel Fire Department Carmel Police Department City of Carmel Farmers Market City of Carmel Public Works Department Coachman's Inn The Cottage Cultura Restaurant Cypress Inn Grasings Coastal Cuisine Grill on Ocean Ave Hotel Carmel Il Grillo Kat's Place La Balena Lafayette Kitchen, Inc. Little Napoli Mediterranean Restaurant Prime At 60 Inc. Seventh and Dolores Steakhouse Vesuvio Restaurant	Pebble Beach Beach Club The Lodge PBCSD Fire Station Robert Louis Stevenson School Spanish Bay Spyglass Grill	Salinas All California Realty Belas Bar and Grill Berkley Inc. Black Bear Diner Cardenas Market Carl's Jr. (E. Market) Central California Alliance for Health Cleartec Costco County of Monterey - Schilling Site Denny's (N. Main) El Charrito Market Encore Oils Enza Zaden Farmers Produce First Methodist Church Food For Less Fruteria La Mexicana Ippolito International Judy Blomquist Kentucky Fried Chicken (E. Alisal) La Casa Del Sazon La Casa Del Sazon #2 La Gloria Apartments La Plaza Bakery Las Islas Marias Monterey Coast Brewing Natividad Hospital Northridge Cinema Nunes Cooling Olive Garden Oriental Restaurant PG&E Primus Labs Red Lobster Rollicks Sakura Seafood Buffet Salinas Grocery Outlet Salinas Valley Memorial Hospital Santa Fe Foods Shogun Smartwash Solutions Starbucks (Work St and Constitution Blvd) Tacos Pacheco Taylor Fresh Foods Toyota Material Handling Walmart (N. Main and N. Davis)
Marina Burger King Cinemark Theaters Cypress Point Shopping Center Epiphany Lutheran Church Everyone's Harvest Marina Market Filipino American Club Green Valley Corp Interim Inc. Jack in the Box Marina Dunes Food Marina Grocery Outlet Morden Food Round Table Pizza The Sanctuary Beach Restaurant Sarvian Manoechehr A Taste of Elegance Catering Veterans Transition Center	Del Rey Oaks Starbucks Tarry's Roadhouse	Sand City Bagel Bakery Chipotle Costco Wholesale Jamba Juice Panera Starbucks	

California law AB1826 requires businesses that generate 4 cubic yards of organic waste per week to participate in an organic waste recycling program.

ORGANICS TO ENERGY
MONTEREY REGIONAL COMPOST PROGRAM
www.OrganicsToEnergy.org

Turning Waste Into Resources
MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT
14201 Del Monte Blvd, 2 miles north of Marina | www.mrwmd.org | 831-384-5313






Have a Question about Recycling?

What Goes Where



**RECYCLING IS CHANGING
IN MONTEREY COUNTY**

WhatGoesWhere.info

Turning Waste into Resources

Thank You





Keith Day

Owner, Gabilan Ag Services



Gabilan Ag Services

<https://www.keithdaycompany.com/>

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Keith Day

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(831) 320-4571



Panel Q&A

Hank Brady

SB1383 Manager, CalRecycle

Melissa Kendrick

Executive Director, Food Bank Monterey County

Patrick Mathews

General Manager, Salinas Valley Recycles

Tim Flanagan

General Manager, MRWMD

Keith Day

Owner, Gabilan Ag Services



Lunch!

While waiting, please set up the poll, if you have not done so already.

Text **MCSWG425** to the number **22333**

What's in a Name?

Suggestions

Secondary Ag Commodity

Food for Thought

Upcycled organics

Imperfect greens

Agriculture byproduct (ABP)

Co-product

“Process Reserve Solids” or PR Solids

Green Ag

Produce by-product

Secondary by-product

Ag Energy

Fuel Grade Vegetables

Fuel Grade Fruits

Fuel Grade Berries

Identify alternative name for "organic waste" or "culls"
that is positive and implies REAL VALUE

Speed Solution Presenters



Sara Pace

Postdoctoral Scholar
UC Davis
Food Science & Technology



Brian Curtis

CEO
Concentric Power



Dan Morash

Founder
CA Safe Soil



Thank You!

Questions? Contact:

Nikki Rodoni

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Nikki@measuretoimprovelc.com