



**WELCOME**  
**Legislative Delegates**

# Resource Recovery for a Greener Future



“The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking.”

– Albert Einstein



Imagine What Can Be...

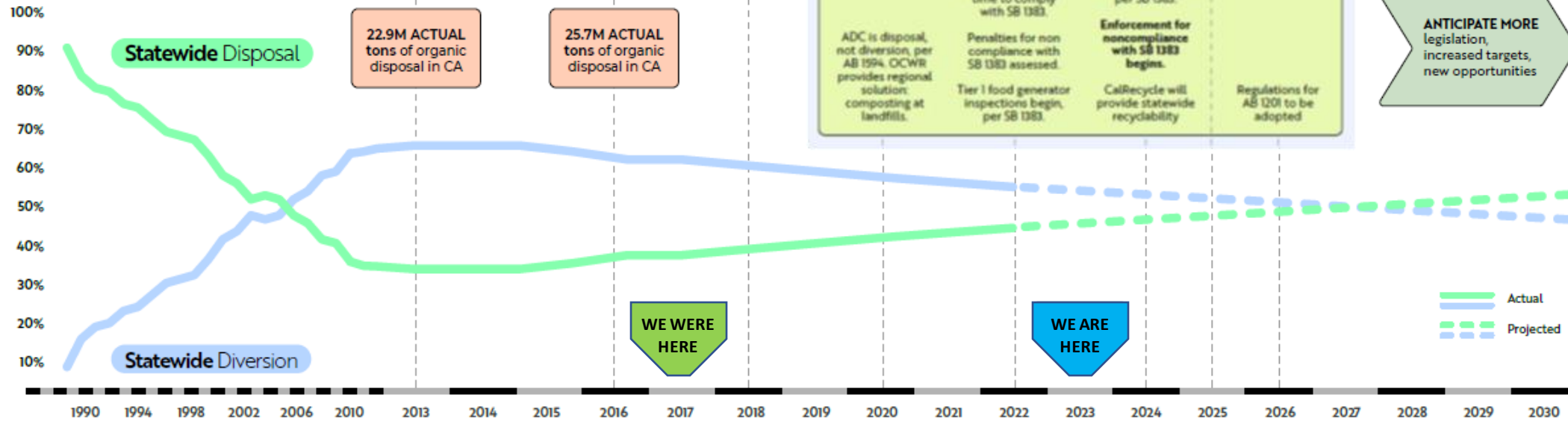


OCWR SB1383 Infrastructure Saga

Tom Koutroulis, Director



# Industry Trend and Timeline 2021 & 2022 Key Legislation



### ENFORCEMENT

Reduce methane emissions by 50%, recover edible food by 20%, per SB 1383.

Jurisdictions must submit a waiver to allow for more time to comply with SB 1383.

ADC is disposal, not diversion, per AB 1594. OCWR provides regional solution; composting at landfills.

Tier 2 food generator inspections begin, per SB 1383.

Enforcement for noncompliance with SB 1383 begins.

CalRecycle will provide statewide recyclability.

Regulations for AB 1201 to be adopted.

Penalties for non-compliance with SB 1383 assessed.

Tier 1 food generator inspections begin, per SB 1383.

Needed: Capacity for 18 million tons of organic waste

ANTICIPATE MORE legislation, increased targets, new opportunities

## KEY 21/22 LEGISLATION

- SB 619
- AB 1301
- SB343
- AB 1985
- AB 1857
- SB 54

## Key legislation milestones

1989

**AB 939 passes**  
CA Integrated Waste Management Act requires all jurisdictions to divert 50% of waste from landfills.

2011

**AB 341 passes**  
Commercial recycling requires 75% diversion by 2020.

2014

**AB 1826 passes**  
Commercial organics recycling requires statewide recycling; 75% goal by 2020.

**AB 1594 passes**  
Eliminates diversion credit for green waste; changes status of PGM to disposal.

2016

**SB 1383 passes**  
Methane reduction and edible food recovery. Recover 20% of edible food by 2022; enforcement begins in 2024.

2021

**SB 619 passes**  
March 1, 2022, jurisdictions who met certain conditions were allowed to come into SB 1383 compliance without being subject to penalties by CalRecycle.

**AB 1201 passes**  
Prohibits sale of plastic products labeled as "compostable" or "home compostable" unless product meets ASTM compostability standard by January 1, 2026.

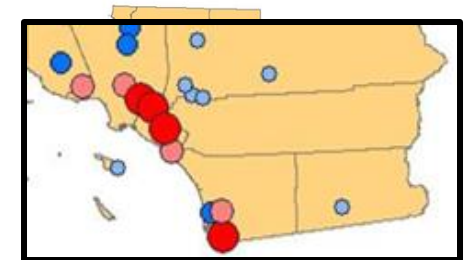
**SB 343 passes**  
Beginning January 1, 2024, only products meeting statewide recyclability criteria can utilize the chasing arrows symbol.

2022

**AB 1985 passes**  
Implemented delayed enforcement for procurement targets and phased in organics procurement targets (35% on or after Jan 1, 2023, 65% on or after Jan. 1, 2024, & 100% on or after Jan. 1, 2025).

**AB 1857 passes**  
Repeals the provision authorizing the inclusion of not more than 10% of the diversion through transformation.

**SB 54 passes**  
Prohibits producers of single-use, disposable packaging or single-use, disposable food service ware products from offering for sale, distributing or importing in or into the state.



**CalRecycle**

Green Waste ADC Tons	
1 - 15,000	(28 facilities)
15,000 - 50,000	(11 facilities)
50,000 - 100,000	(5 facilities)
> 100,000	(4 facilities)

# OCWR – Overview

- IWMD/OCWR – Established in 1940's
- 20 closed sites, 4 HHW's, 11 Franchise Agreements
- Operate 3 Active landfills (1960, 1976, 1990)
- Rich culture of landfilling history
- SB1383 created need for infrastructure & industry experts
- Concept and Approach: Crawl, Walk, Run
- Compost facilities plan (2020, 2021, 2022)

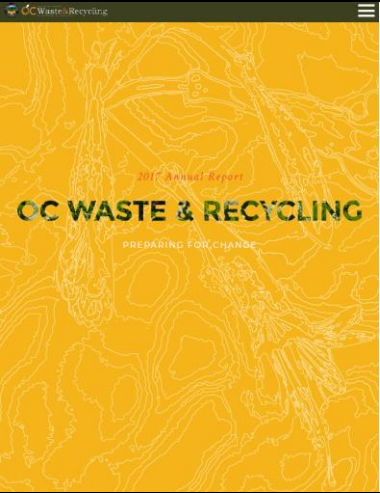




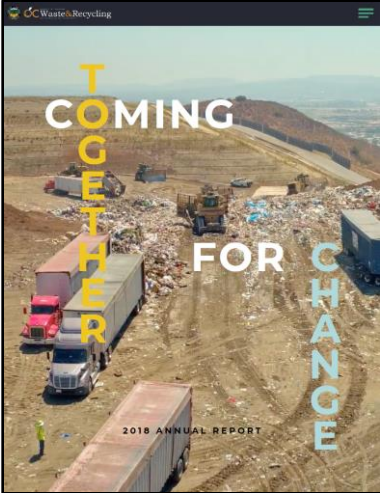
# OCWR SB1383 Journey – Annual Report



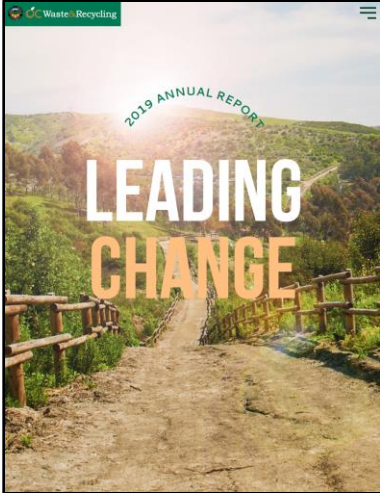
2017 Preparing for Change



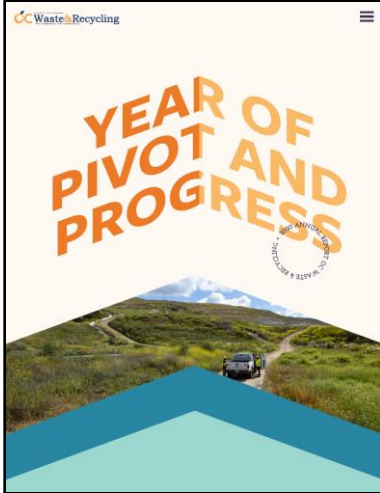
2018 Coming Together for Change



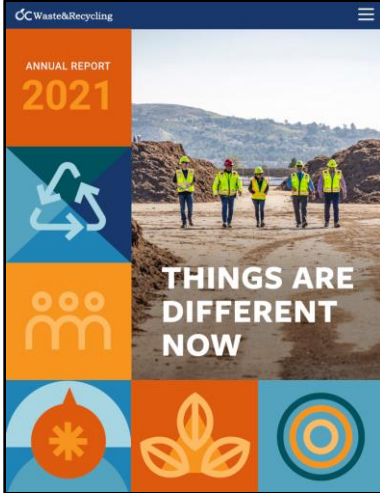
2019 Leading Change



2020 Year of Pivot and Progress



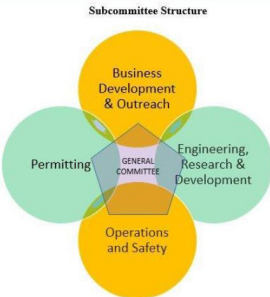
2021 Things are Different Now



2022 Imagine what can be.



Culture Trumps Strategy



Location, Location, Location.



“Haters Gonna Hate”



N.I.M.B.Y. To Y.I.M.B.Y.



Skill vs Luck

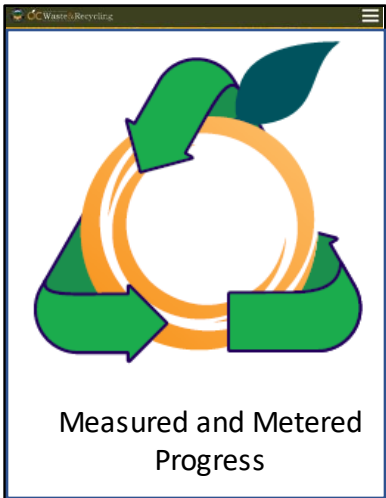


Kaizen Mindset



# Future for OCWR: Kaizen Mindset Continues....

## 2023 Kaizen Mindset

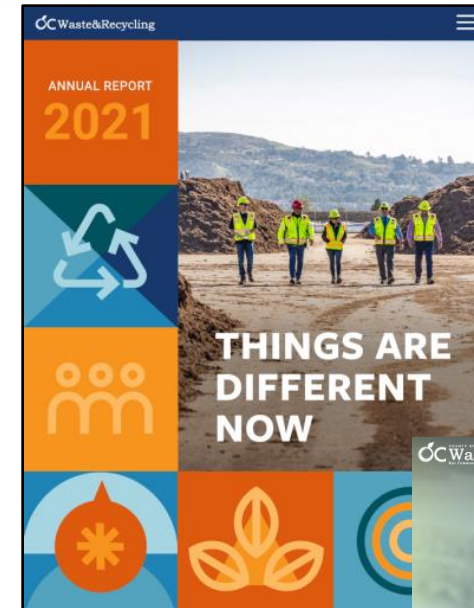


- Windrow – In Operation
- CASP – In Development
- SSO/Co-digestion – In Development
- AD – Potential for infrastructure (FS)
- Solar Farms Feasibility – SB100 (FS)
- Emerging Technologies & Processes
- Incubation for Recycling Infrastructure

## WISE Agreement:

Waste  
Infrastructure  
System  
Enhancement

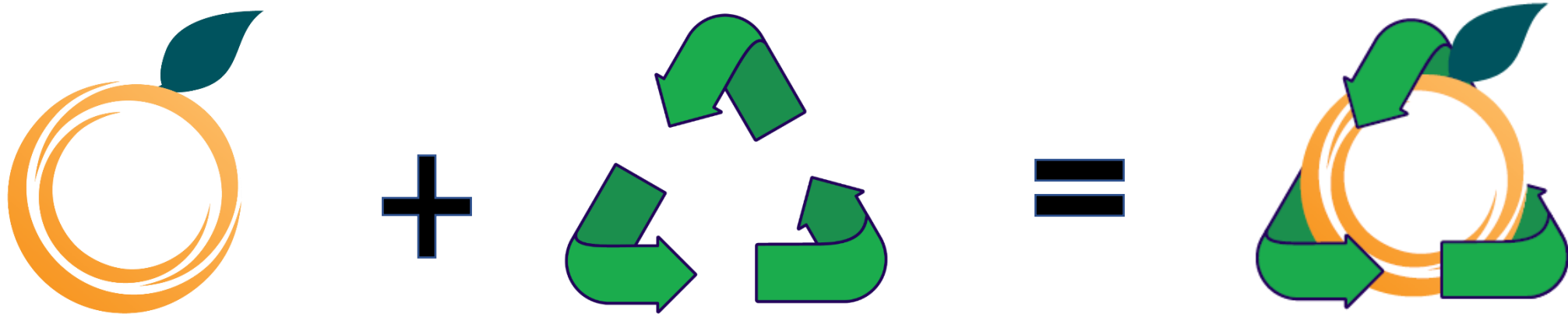
- WDA to WISE Agreement – In Development
  - Organics & Edible Food Regional Approach
  - Market Creation & Development
  - Procurement & Compliance
  - Regional Standardization
  - Regional Collaboration



# Waste Infrastructure System Enhancement

Next step in our evolution of in waste stream management:

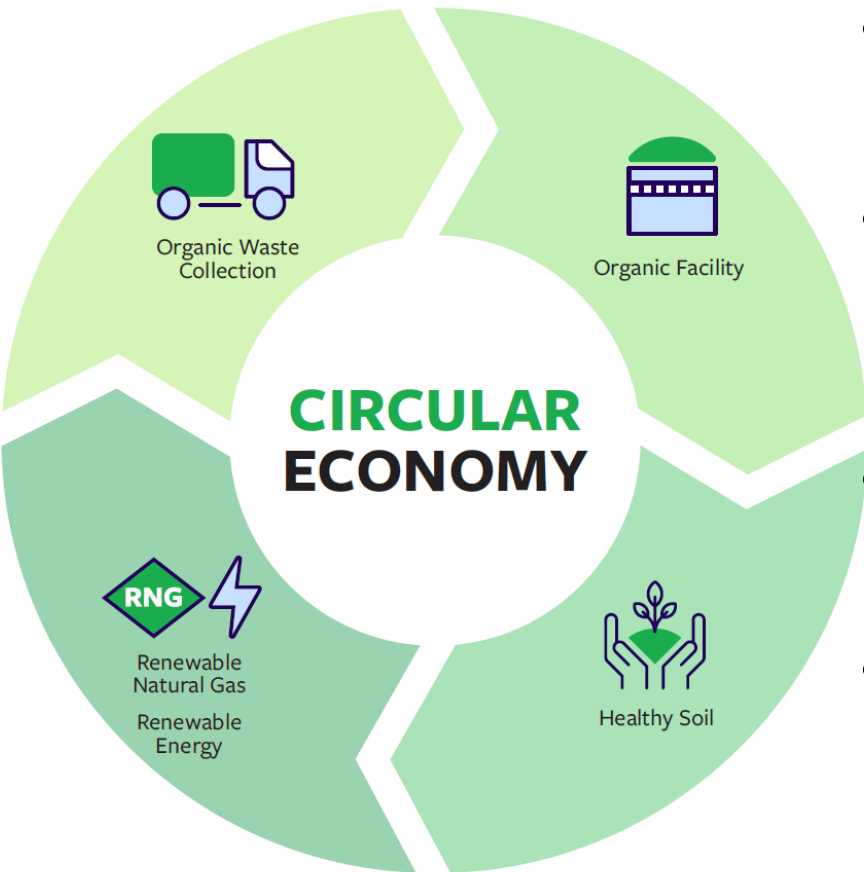
- New positions to support expanded infrastructure, for education and outreach, program implementation and administration. (not all filled)



As an agency, we are changing direction to further protect public health and the environment by expanding to resource recovery.



# Path Forward: **O**rganics **R**enewable **N**atural **G**as **E**nergy

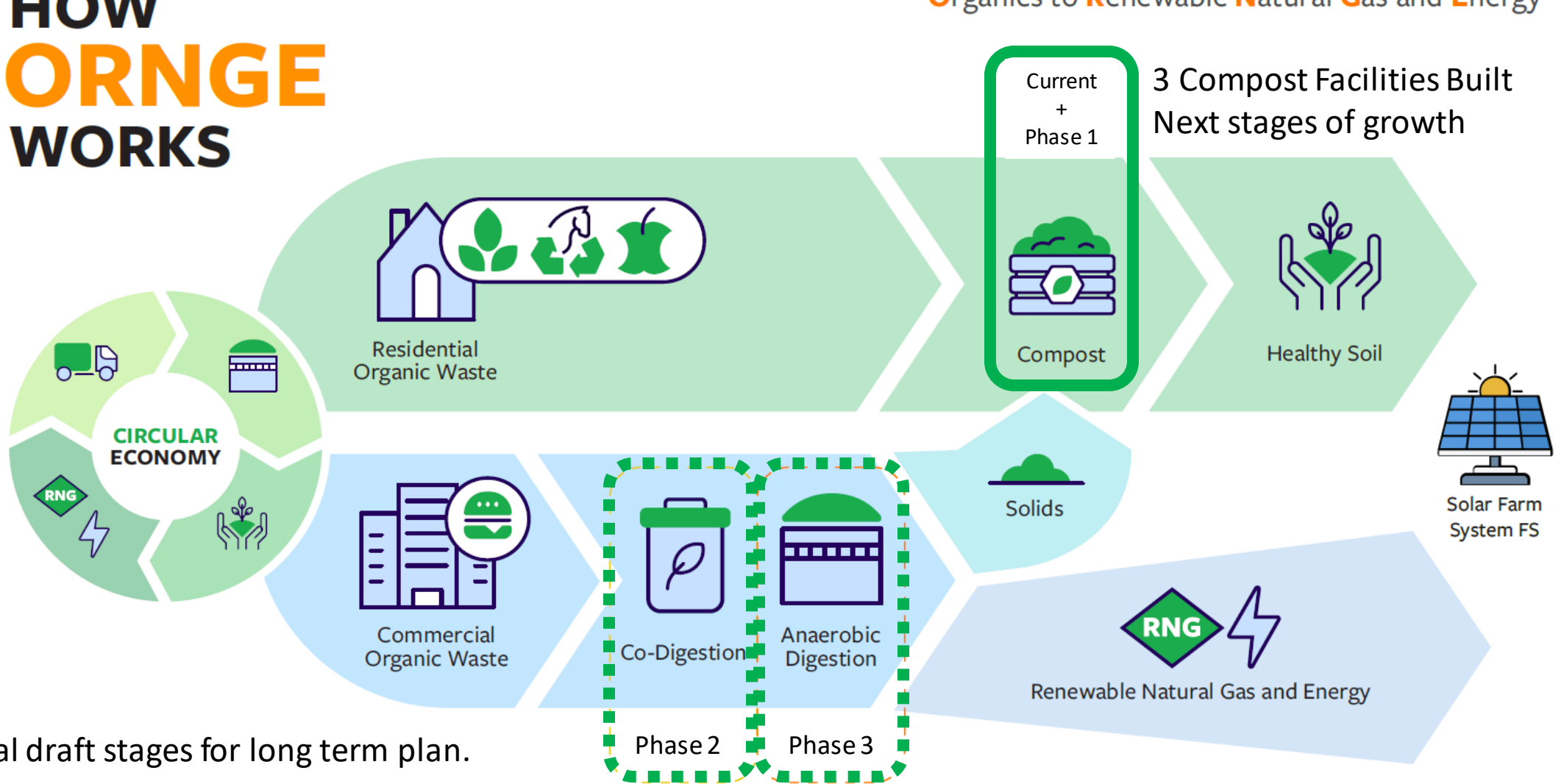


- Regenerating natural systems – Healthy Soils
  - Placed back into local community
- Market Creation & Development
  - The unknown opportunities – D.O.T., P.W., Habitat Mitigation, Stormwater management, etc.
- Create local infrastructure
  - Minimize transportation and establish new applications
- “O.R.N.G.E.” is the new Green
  - Organic Renewable Natural Gas and Energy
  - Shift in business model as an essential public service

# ORNGE is the New Green – System Concept

Organics to Renewable Natural Gas and Energy

## HOW ORNGE WORKS



In final draft stages for long term plan.

# The OCWR Saga Continues... Organics Phase Update

“Nothing wilts faster than laurels that have been rested upon.” - Shelley



<https://oclandfills.com>

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# Developing an Organics Infrastructure in a Complex Environment

Presented By: David Tieu, PE, MSCE, QISP, QSD/P, CCOM™  
Deputy Director, OC Waste & Recycling

# Organic Waste Recycling Infrastructure



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

# What Does it Take to Build an Organics Infrastructure?

- Land
- Community Acceptance and Land Use Capability
- Start Up Capital
- Consistent Feedstock
- Product Offtakers and Marketing
- Perseverance





The fact is...

**Nothing Happens in Waste  
Management and Resource  
Recovery Without Permits.  
NOTHING!**

# Organics Permitting in 2000

- Title 14 CCR, Compostable Materials Regulations
- Conditional Use Permit/CEQA



# Organics Permitting in 2024



- Title 14 CCR, Compostable Materials Regulations
- Conditional Use Permit/CEQA
- CARB In-Use Off-Road Diesel-Fueled Fleets Regulations
- SCAQMD Composting Rules, Rule 1133, 1133.1, 1133.2, 1133.3
- State Water Board/Regional Water Quality Control Board
  - Construction General Permit
  - Industrial General Permit
  - Municipal Separate Storm Sewer System (MS4)
  - General Composting Order
- Orange County Fire Authority Composting, Mulch and Organic Processing Guidelines
- CalRecycle SB 901 Recycling and Disposal Reporting System (RDRS)
- US Fish and Wildlife Service
  - Federal Endangered Species Act
  - Federal Migratory Bird Treaty Act
  - Section 10A, 404
- CDFW Fish and Game Code
- CDFA Food and Agricultural Code





# Organics Material Management Report

- Organics Infrastructure Road Map
  - SB 1383 Short Term Climate Changed Pollutants
  - AB 1594 Alternative Daily Cover
- Facility Siting
- Technologies and Processes
- Permitting Pathway
- Report Available at OCWR Website

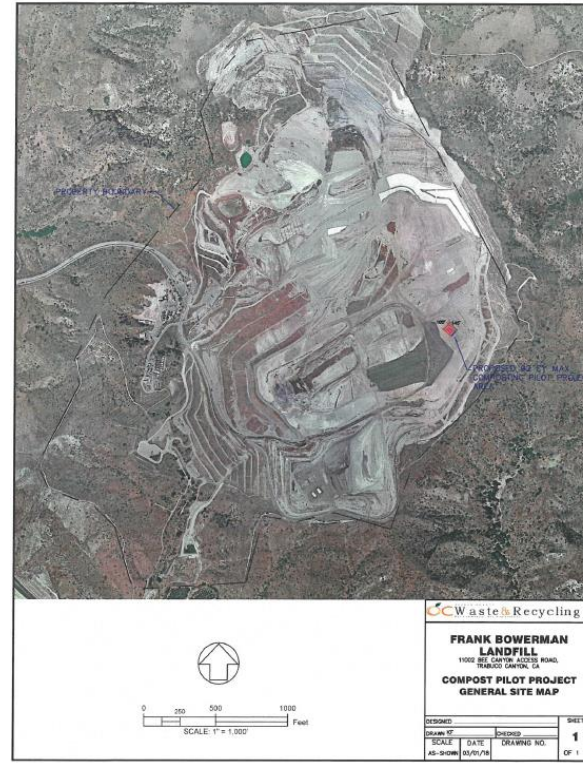
[http://www.oilandfills.com/recycling/changes\\_in\\_recycling/organics\\_initiative\\_report](http://www.oilandfills.com/recycling/changes_in_recycling/organics_initiative_report)



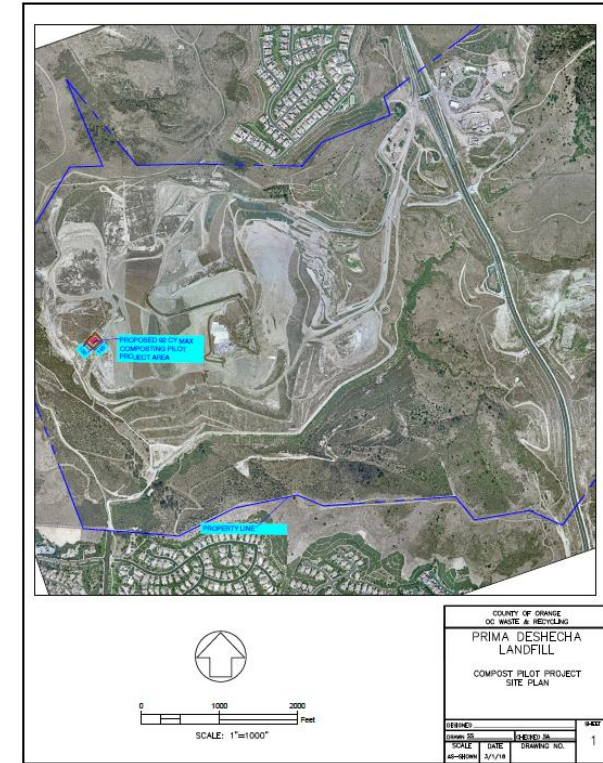
# Demonstration Pilot Projects - Siting



**Valencia  
 Greenery  
 (Brea)**



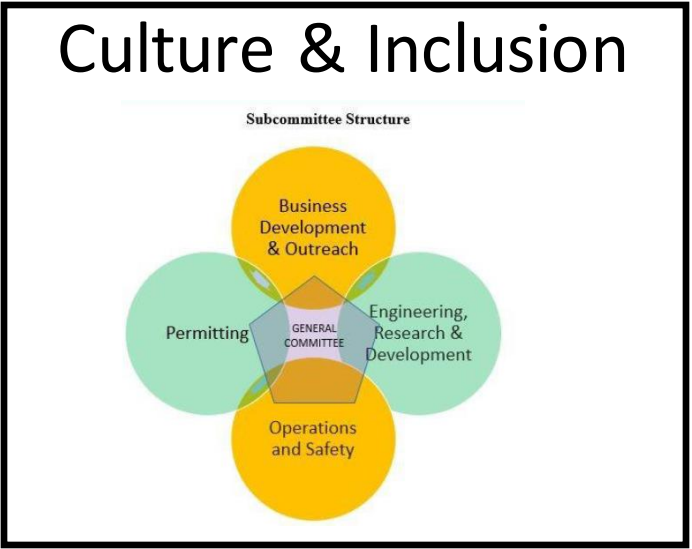
**Bee Canyon  
 Greenery  
 (Irvine)**



**Capistrano  
 Greenery  
 (San Juan Capistrano)**



# The Hurdles, Roadblocks, and Milestones...



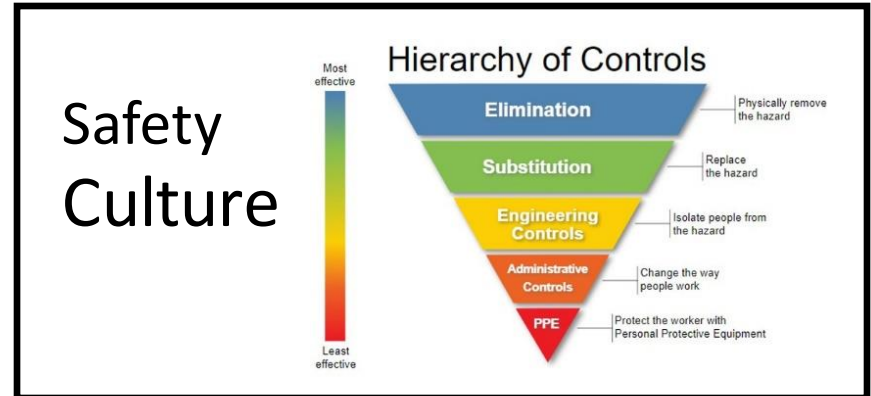
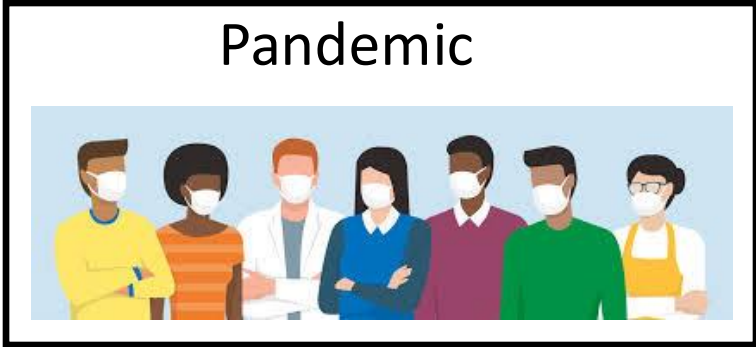
## Mindset & Skill Set

**US Composting Council**  
Composter Training Program

## Natural Disaster

**5 firefighters injured in 13,350-acre Silverado Fire near Irvine, 2 remain critical**

SILVERADO FIRE: 12,600 ACRES, 5% CONTAINED





# Compost Pilot Projects





# Where are we today? Crawl, Walk, Run

- We have started to Crawl
  - Bee Canyon Greenery
  - Capistrano Greenery
  - Valencia Greenery
- Implementation to Management
  - WISE Agreement
  - Program growth with sustainable compliance
  - Expand infrastructure planning



Steam from turning  
the green waste



# OCWR Greener System – Phase I





# Phase IB – Covered Aerated Static Piles



# Organic Recycling Infrastructure Plan – Phase 2

## ■ Co-Digestion (Food Waste)

- Use of existing capacity in WWTP (OC San District)
- SSO processed to remove contamination, homogenize, direct inject into AD (**OCWR Operations**)
- Benefits of increased digester efficiency
  - Biogas production increase & biosolids destruction
- Requires SSO (commercial program)
  - Requires volume (WDA)
- Bridging Solid Waste and Wastewater Industries
  - Use of conversion technology





# Organic Recycling Infrastructure Plan – Phase 3

- High Solids Anaerobic Digestion (Program driven)
  - Larger investment and infrastructure
  - Need for secure volume for long term (WDA)
  - Mass Balance
    - Gas, liquids and solids:
      - Provides RNG for pipeline/fuels/energy
      - Digestate liquids management
      - Biosolids for composting/land applications
  - Continuous process
  - Market driven by legislation and lack of infrastructure



# Legislative Support Needed to Expand Organics Infrastructure

- Organic Processing Facilities as Essential Public Facilities
  - Critical to meet the statewide organic diversion goals
  - Reduce the need to obtain emission reduction credits which are scarce and expensive
- Permit Processing Coordination
  - Increase collaboration amongst permitting agencies
  - Reduce permitting timeframes
- Support Local Market Development
  - CalRecycle can't do it alone
  - Increase coordination amongst state and local agencies to promote organic product utilization





THANK YOU

David Tieu, PE, MSCE, QISP, QSP/D, CCOM™

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# ORGANICS INITIATIVE



# Market Development & Community Engagement

Presented By:

**Robert Sedita, Business Operations, Reporting, Real Estate,  
Strategic Projects**

and

**Irene Alonso, Strategic Communications Manager**



# Partnerships – Creating a Market & Building Community Engagement

INFRASTRUCTURE DEVELOPMENT	PROGRAM DEVELOPMENT	COMMUNITY SOFT LAUNCH	
  	<ul style="list-style-type: none"> <li>Request Process, Workflows, Coordination</li> <li>Internal County Agency Outreach                             <ul style="list-style-type: none"> <li>OC Parks, Public Works</li> </ul> </li> <li>External Outreach                             <ul style="list-style-type: none"> <li>Jurisdictions</li> </ul> </li> <li>First <u>Residential</u> Compost Giveaway at FRB (May 21, 2022)</li> </ul>	<ul style="list-style-type: none"> <li>Community Access                             <ul style="list-style-type: none"> <li>Residential Requests</li> <li>Landfill Coordination</li> </ul> </li> <li>Bulk Requests                             <ul style="list-style-type: none"> <li>Application Process</li> <li>Bulk Open Pass</li> </ul> </li> <li>First <u>Countywide</u> Compost Giveaway (November 5, 2022)</li> </ul>	
COMMUNITY FORMAL LAUNCH	MARKET DEVELOPMENT	BREAKING GROUND	EXPANSION
<ul style="list-style-type: none"> <li>Website Launch</li> <li>Online Scheduling System</li> <li>Targeted Outreach                             <ul style="list-style-type: none"> <li>Landscape Companies</li> <li>Landscape City Contractors</li> <li>City Public Works Depts</li> <li>City Compost Giveaways</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Bagging Machine – Increased Opportunity</li> <li>Partnerships                             <ul style="list-style-type: none"> <li>Water Districts</li> <li>Sanitary Districts</li> <li>School Districts</li> <li>County Procurement Language</li> </ul> </li> <li>Second Countywide Compost Giveaway (April 1, 2023)</li> </ul>		<ul style="list-style-type: none"> <li>Standardize Operating Process</li> <li>Cost Recovery Considerations</li> <li>CDFR License and Product Registration</li> <li>Agriculture Commissioner Network</li> <li>WISE Agreements</li> <li>Potential Partnerships</li> <li>Countywide Compost Giveaways</li> </ul>



# 24 Cities

## › 13 currently with Open Passes

1. Brea
2. Fountain Valley
3. Fullerton
4. Garden Grove
5. Huntington Beach
6. Irvine
7. Laguna Beach
8. Laguna Niguel
9. Mission Viejo
10. Newport Beach
11. Placentia
12. Seal Beach
13. Yorba Linda







# Organizations

Caltrans

Santa Margarita Water  
District

Irvine Ranch Conservancy

04 County Agencies

- › OC Parks
- › OC Public Works
- › CEO County Procurement
- › Agriculture Commissioner



**SMWD + OCWR  
partner for compost  
giveaway event**



## Landscapers

- › 15 currently with Open Passes
  - AG Organics
  - BrightView
  - O'Connell Landscape
  - Park West
  - The Soto Company



**IRC – mitigation project in O'Neill Regional Park**



# Giving Back to Our Communities







## Strategic Partnerships

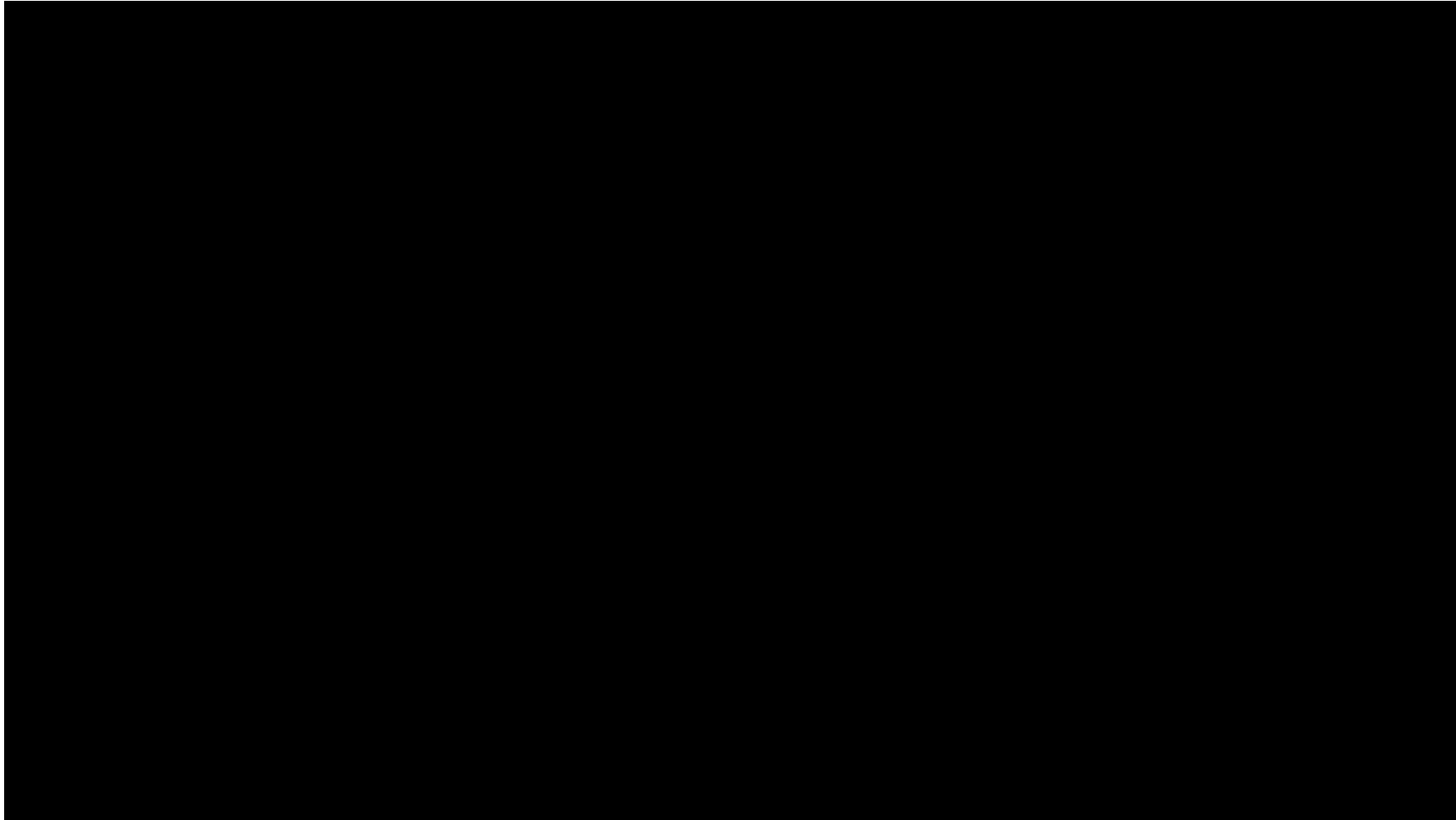
- Discovery Cube Eco Challenge
- OC Department of Education
- Anaheim Ducks
- Angels Baseball
- Community events

## Jurisdictional Support

- City Managers
- Quarterly Recycling Coordinators Meeting
- Monthly ReGroup roundtables



# Our Community. Our Commitment.





# ADVOCATING FOR PROGRESS

## Essential Public Services



ORGANICS AND WASTE  
MANAGEMENT



Public Owned  
Processing Facilities as  
Essential Public Services



PERMITTING TO SUPPORT  
INFRASTRUCTURE  
ADVANCEMENT



Coordinated  
Efficiency Across  
Regulatory Agencies



PROCUREMENT AND  
DISTRIBUTION



Renewable Energy  
Resources and End  
Market Support



EDIBLE FOOD RECOVERY



Funding and  
Resources