

Not Your Father's Waste Management System

Overview, Challenges, Opportunities and a
Collective Vision For 2022 and Beyond

Presented By: Tom Koutroulis
City Managers Workshop 2
August 26, 2021



SB 1383 IN ACTION

LOCAL GOVERNMENT ROLES AND RESPONSIBILITIES

SB 1383 doesn't just apply to waste management and recycling departments.

Every local department plays a role in SB 1383 implementation.



CalRecycle 

SB1383 – The Basics

Statewide effort to reduce short-lived climate pollutants. For solid waste management that means reducing methane production and recovering rather than burying edible food.

Organics Recycling

- 50% reduction 2020
- 75% reduction 2025

Edible Food Recovery

- 20% recovery 2025

SB 1383 Key Jurisdiction Dates

2022



Provide Organics Collection Service to All Residents and Businesses



Establish Edible Food Recovery Program



Conduct Education and Outreach



Procurement



Capacity Planning

2024



Starting January 1, 2024
Jurisdictions must take
action against non
compliant entities

Infrastructure Estimates for Compliance

State Infrastructure

- ➔ 75% diversion for the state by 2025:
 - ▶ More than 18 million tons of new/expanded capacity per year
 - 59,000 Tons per day
 - CalRecycle identifies infrastructure needs
 - ▶ Unfunded with limited access to grants/low-cost loans

Orange County Infrastructure

- ➔ 75% diversion for Orange County Cities by 2025:
 - ▶ 1.5 Million tons of new/expanded capacity per year
 - 5,000 tons per day
 - Est. 8% of daily organics tonnage
 - ▶ Tip fees fund grants and loans
 - RMDZ

Infrastructure Estimates for Compliance

State Infrastructure

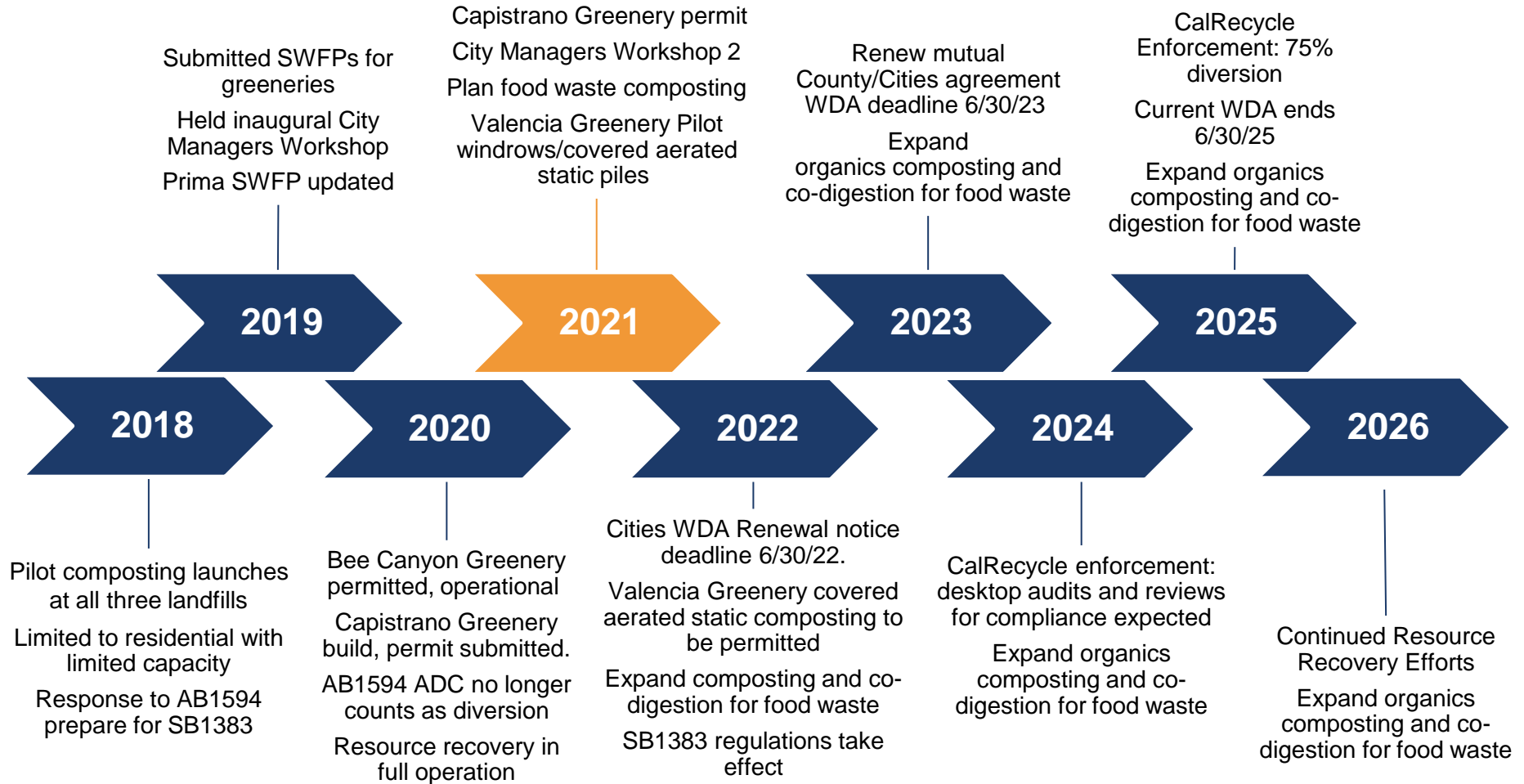
DRS DATA	DISPOSAL
Los Angeles County	27.2%
San Diego County	9.3%
Orange County	8.7%
Riverside County	6.2%
San Bernardino County	4.9%

Orange County Infrastructure

DRS DATA	ADC
Orange County	19.7%
Los Angeles County	18.5%
Alameda County	10.0%
San Diego County	9.0%
Santa Clara County	7.1%

Source: CalRecycle 2016 and 2017 County Destination Reports

AB 1594 and SB 1383 Regional Response Timeline



Organic Recycling Infrastructure Plan – Phase 1

→ Composting (Windrow or Covered Aerated Static Pile)

- ▶ Windrow - currently permitted and operating
 - Basic permit
- ▶ Covered Aerated Static Pile (CASP)
 - AQMD permit needed
 - Use of cover and forced air
 - Reduces composting time
 - Reduces water consumption
 - Mitigation of odors and vectors
 - Batch process



*** Expanding permit capability to accept additional organic waste types

The Foundation

Organic Recycling Infrastructure Plan – Phase 2

→ Co-Digestion (Food Waste)

- ▶ Use of existing capacity in WWTP
- ▶ SSO processed to remove contamination, homogenize, direct inject into AD (OCWR Operations)
- ▶ Benefits of increased digester efficiency
- ▶ Requires SSO (commercial program)
- ▶ Industries response to needed infrastructure.



BAT for Manufacturing

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 management
- ▶ Continuous process
- ▶ Market driven by legislation and lack of infrastructure



**Closes loop on Organics
Recycling, RNG and Composting**

PROJECTED TIMELINE: Organic materials recycling infrastructure

PHASE 1
Composting
2021-22

PHASE 2
**Co-
Digestion**
2022-23

PHASE 3
**Anaerobic
Digestion**
2025-26

CRAWL



WALK



RUN



New Business Model: Pivot To Resource Recovery



Composting Strategy – AB1594 and SB1383

OCWR = Residential ONLY

- ➔ Jurisdiction – Compliance required, franchise agreements, PGM/ADC past practice
- ➔ Generators – Residential and commercial, part of 3-cart system, education and outreach needed
- ➔ Hauler – Provide collection, processing and transportation,
 - ▶ PGM process to ADC concept – lower cost impacts
- ➔ OCWR – Composting at landfills, previous PGM/ADC materials now repurposed, develop local outlets
 - ▶ Continue to expand organics recycling materials
- ➔ Foundation for organics recycling for co-digestion and high solids digestion, need for solids further maturation for soil amendment

STATE MANDATED BIN COLORS



CRAWL



WALK



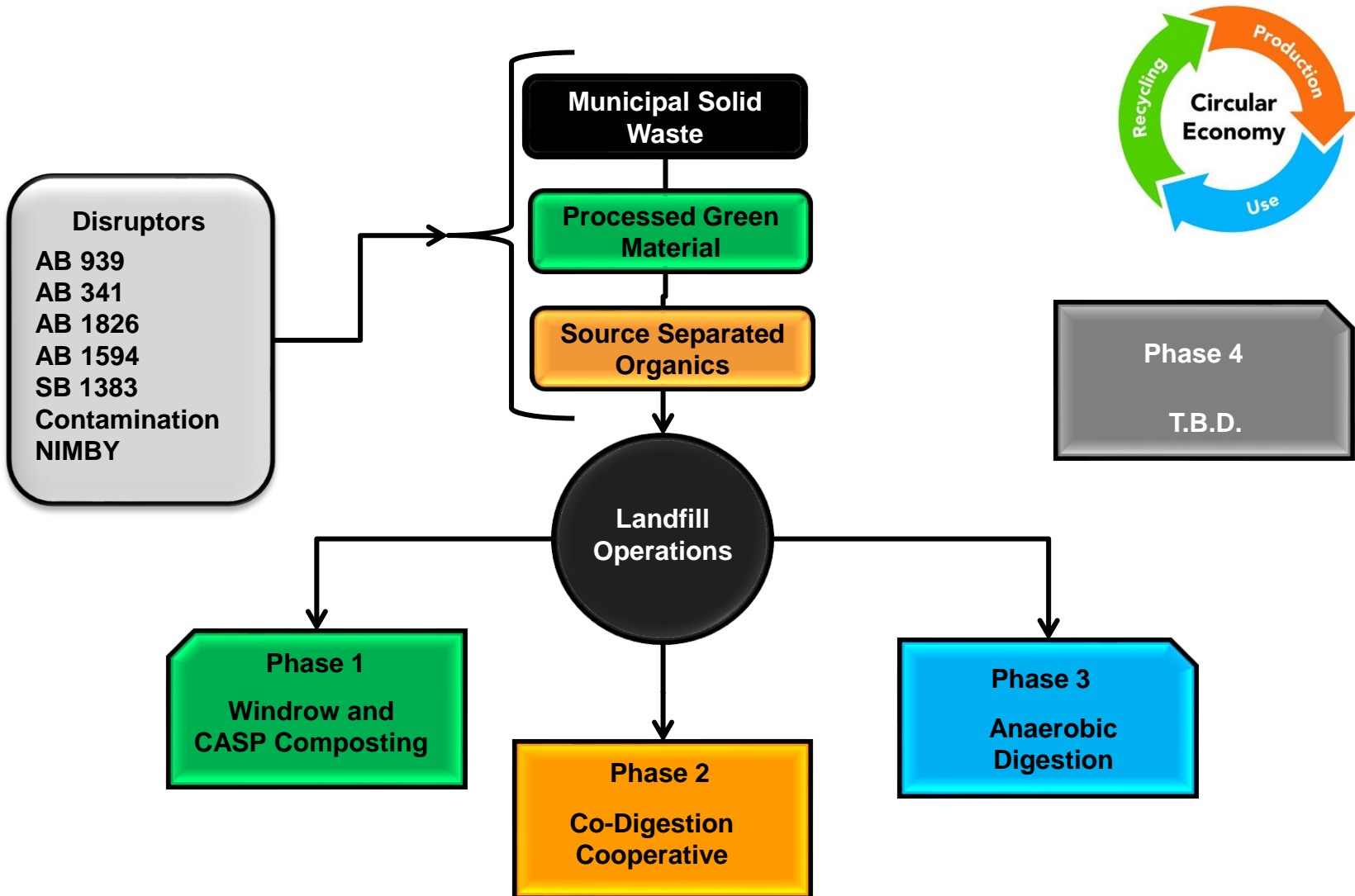
RUN

Co-Digestion Strategy - AB1826 and SB1383

OCWR = Commercial Only

- Jurisdiction – Compliance required, franchise agreements, negotiated rate for program
- Generator – Commercial business that fall under AB1826 (MORe) and SB1383
- Hauler – Provide collection and transportation, franchise agreement
- OCWR – Invest in conversion technology: turn waste materials into a manufactured spec for co-digestion (tip and processing fee, bridging the gap) – Co-op with Sanitation Districts
- WWTP – Invest in receiving infrastructure food slurry for co-digestion





What's next to create the infrastructure?

→ Funding:

- ▶ Beyond OCWR, available state and fed sources; grants

→ Volume/Capacity:

- ▶ WDAs to guide volume; discussion for continued regional solution

→ Support/Participation:

- ▶ From local leaders throughout OC; champions needed; collaboration

→ OCWR:

- ▶ Getting shovel ready to be better positioned to seek/receive

→ Operations:

- ▶ Permitting, equipment, operations, human infrastructure

THANK YOU!

Please use the chat box for questions.

Our panel of speakers will answer questions at the end of the presentations.