



**EPA SMM Web Academy**  
**State Policies to increase Organics**  
**Diversion from Landfills**  
**CalRecycle's Approach**

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# Today's Topics

- Organics policy drivers
- What will it take to get to 75%?
- Existing organics infrastructure
- Infrastructure development issues
- Markets
- Financial incentives

# What are Organics?

Green Materials



Wood waste



Food Materials



Manure



Biosolids

# CalRecycle – Direct Policy Drivers

## AB 939

- 50% diversion requirement on jurisdictions

## AB 341

- 75% statewide by 2020
- Not transformation or disposal-related activities
- Doesn't change AB 939 mandate on jurisdictions

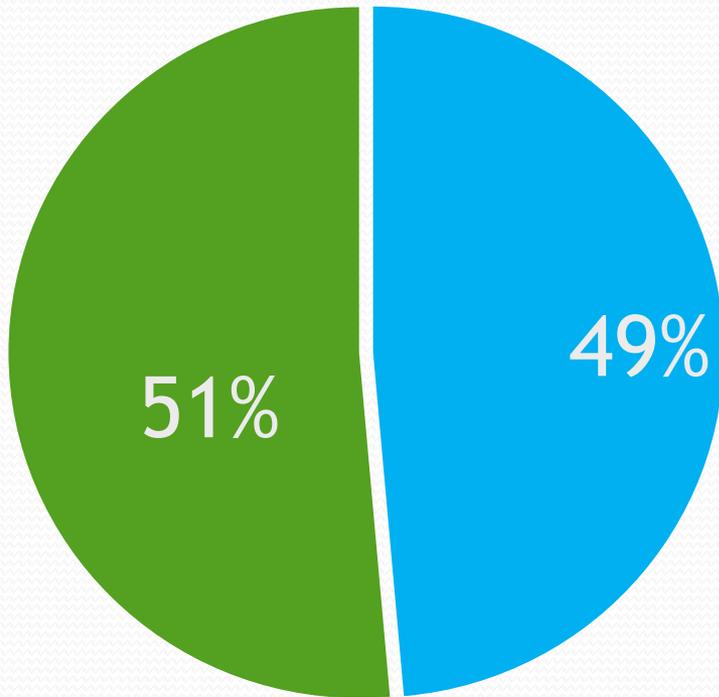
## AB 1826

- Mandatory commercial organics recycling

## AB 1594

- Alternative Daily Cover (ADC) ≠ recycling

# 75% -- Where Are We Now?

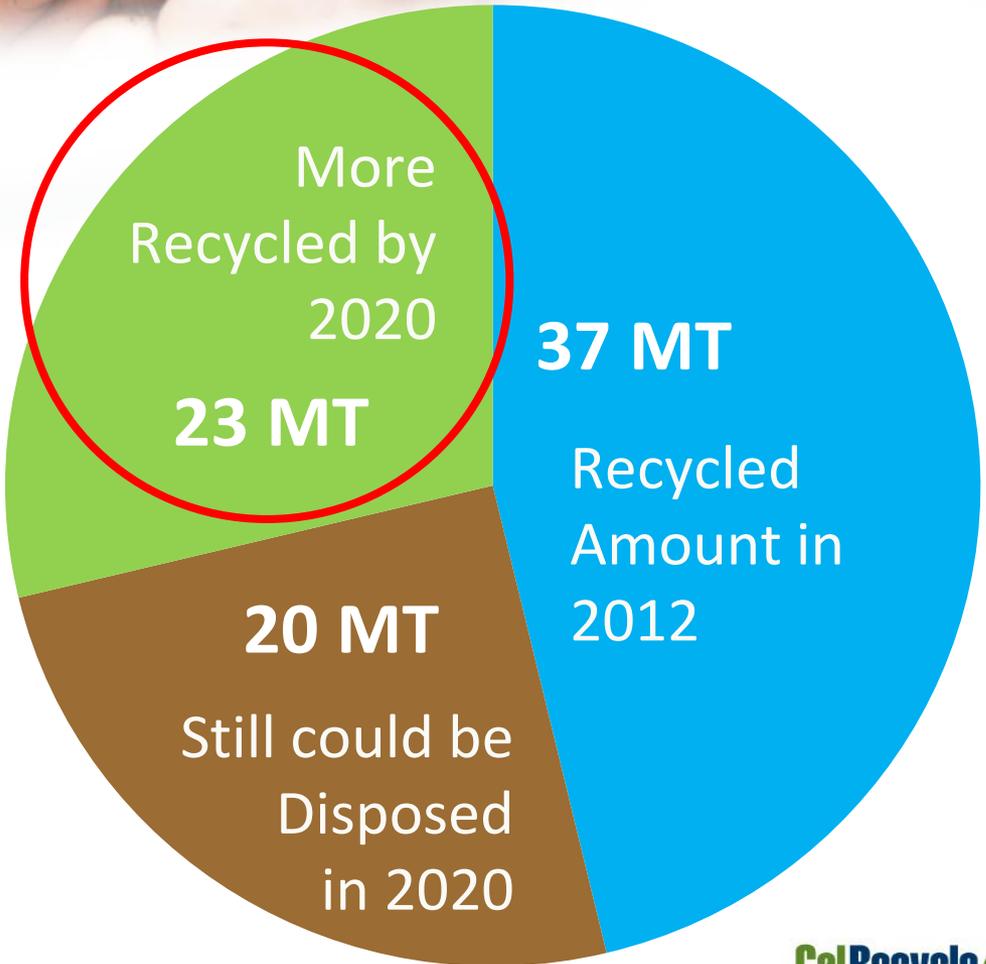


■ Currently Recycled  
(Pounds/Person/Day)

■ Currently Disposal-  
Related Activity  
(Pounds/Person/Day)



# Projected 2020 Tonnages To Reach 75%



# What Will 75% Take?

- Moving > 20 million tons/year out of landfills
  - No way to achieve 75% goal without organics
    - > 40% of disposal including lumber
    - >> 10 million TPY suitable for compost, mulch, AD, and biomass power
    - Food waste biggest category ~6 million TPY
  - Has to be handled locally or regionally
- ➔ Dozens/100s of new or expanded facilities

# AB 32 Scoping Plan

- Reduce GHGs to < 1990 levels
  - ARB Scoping Plan Update 2014
    - Waste Management Sector
    - Potential for 20-30 MMT GHG reductions
    - Activities support AB 341
  - Revised Plan 2016
- <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
- Funding/incentives for infrastructure
    - e.g., GHG Reduction Program \$\$
  - Regulatory/statutory provisions
    - e.g., direct regulations on organics in landfills?
    - Short-Lived Climate Pollutant policy
  - Emission reduction factors
  - Permitting
  - Procurement

# Governor Brown's Climate Change Pillars

## CALIFORNIA CLIMATE STRATEGY

*An Integrated Plan for Addressing Climate Change*



### 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**



**Reduce  
short-lived  
climate pollutants**



**Safeguard  
California**

# Short-Lived Climate Pollutant Reduction

- Draft strategy released 9/30/15
- Reduce methane, black carbon, fluorinated gases
- Key points for organics:
  - Divert 90% by 2025 -- 'Effectively eliminate' disposal
  - Align financial incentives with organics diversion
  - Collaborate on permitting and developing markets
  - Support research on landfill emissions, water savings from compost use

<http://www.arb.ca.gov/cc/shortlived/shortlived.htm>

# Healthy Soils Initiative

- Increase carbon in soil and establish long term goals for carbon levels in California agricultural soils
- CDFA lead, CalRecycle support
  - CDFA focus - incentivizing use of products from expanded organics infrastructure to build organic matter of agricultural soils
  - CalRecycle focus - technology enhancement and organics infrastructure development
  - Triggers for organics landfill diversion and market demand pull for products, resultant GHG emission reductions

<http://www.cdca.ca.gov/Environment/HealthySoils.html>

# AB 1826: Businesses

- **April 2016** - Businesses generating >8 CY organics/week required to have organic waste recycling
- **Jan 2017** - 4 CY/week of organics
- **Jan 2019** - 4 CY/week of solid waste
- **2020 trigger:** CalRecycle can reduce to 2 CY of waste if statewide organics disposal not cut in ½
- Multifamily complexes not required to divert food waste

# AB 1826: Jurisdictions

- **Jan 2016** - Implement program
  - Outreach, education, monitoring
  - Organics recycling program
  - Identify barriers; plan to address barriers
- **2016** - CalRecycle annual calls/site visits
  - We don't expect everything up and running on Jan. 1, 2016
- **Aug 2017** - begin providing info in Annual Reports
- **2018 and 2020** and ongoing—formal jurisdiction reviews

<http://www.calrecycle.ca.gov/recycle/commercial/organics/>

# AB 1594

- **2020:** Green material ADC ≠ recycling
  - Will be considered disposal
  - Exempt from tipping fee
- **August 1, 2018:** In Annual Report, each jurisdiction to provide info on plans to divert this material
- **August 1, 2021:** If jurisdiction fails to meet 50%, then in Annual Report has to address barriers to recycling green material

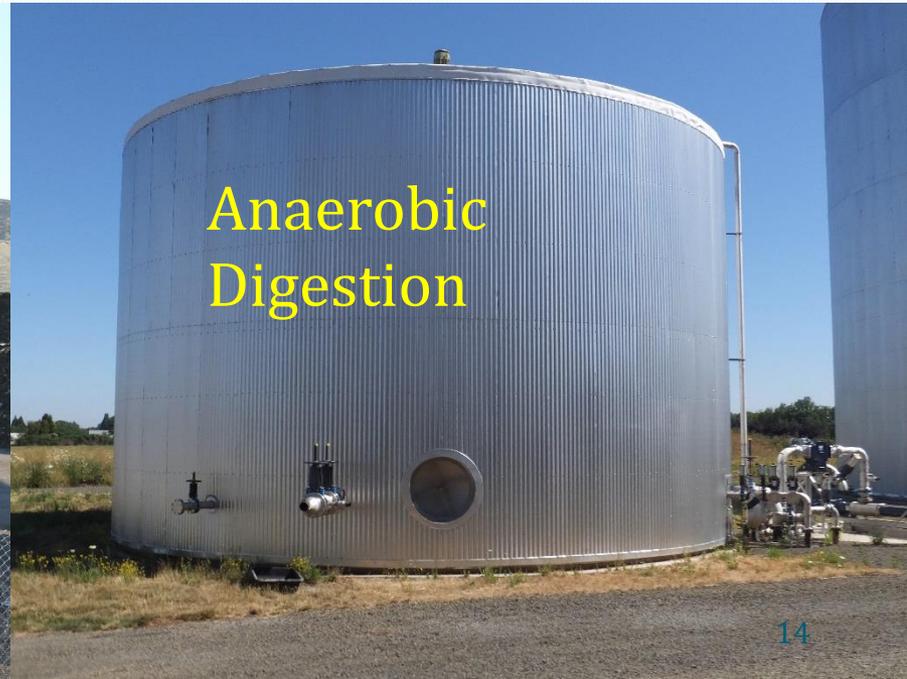
[www.calrecycle.ca.gov/lgcentral/basics/ADCGreen/default.htm](http://www.calrecycle.ca.gov/lgcentral/basics/ADCGreen/default.htm)

# Infrastructure

Aerated Static Pile composting



Anaerobic  
Digestion



# Composting in California

- Approximately 160 compost facilities
  - Mostly “open windrow” composting
- Largest 20% do 80% of composting tonnage
  - ~5.5 million tons per year composted
- Not evenly spread around state
- Many more ‘chip and grind’

# Major Issues in Infrastructure Development

- Cost compared to landfilling
- Permitting – state, regions, districts
- CEQA
- Local land use decisions, NIMBY
- Ensuring markets
- Financing new/expanded facilities
- Grid interconnection/pipeline injection

# Permitting/Siting Issues

- CalRecycle regulations on composting, AD
  - Definition of food material
  - Requirements for in-vessel digesters
  - Contamination levels
  - Land application restrictions
- Air Districts and ARB
- Regional Water Boards and SWRCB
- Local land use

# Markets

## Clean Products

- Contamination comes back to local soils and water
- Compost subject to metals and pathogen standards
- Labeling info: US Composting Council, CDFA re: nutrients
- Physical contaminants - glass, plastics
  - CalRecycle regulations
  - Working with Water Board & CDFA on land application

## Procurement & Demand

- Markets for organics mostly local or regional
  - Local government procurement
  - Promotion with local residents, landscapers, businesses
  - CUWCC
- Working with State Agencies on procurement
  - Caltrans, DWR, CDCR, others
- Healthy Soils Initiative with CDFA
  - Research, incentives for agriculture
- Organics incentive payment for producers, to help overcome costs??



# State Financial Incentives

- CEC: Alternative Transportation Fuel Grants
- ARB: Low Carbon Fuel Standard
- Treasurer: CPCFA Tax-Exempt Bonds, CalCAP
- CalRecycle: RMDZ Loans
- **CalRecycle: Greenhouse Gas Reduction Grants/Loans**
- CEC/CPUC: Renewable Portfolio Standard
- BOE: Manufacturers Tax Rebates
  - New: AB 199

# CalRecycle Greenhouse Gas Reduction Grants & Loans

- Competitive grants and loans to reduce GHGs and divert materials from landfills by expanding existing capacity or establishing new facilities in California
- Benefit disadvantaged communities
- Co-benefits:
  - Enhanced air/water protection
  - Job creation
  - In-state biofuel/bioenergy production

# CalRecycle Greenhouse Gas Programs (FY 14/15)

2 Grant Programs (\$20 million)

- Organic materials (\$15 million)
- Fiber, Plastic, and Glass (\$5 million)

1 Loan Program (\$5 million, revolving)

- Organics & Fiber, Plastic, and Glass

(also separate Recycling Market Development Zone (RMDZ) loan funds)

# Grant and Loan Criteria

## Use of Grant Funds:

- Purchase of equipment
- Machinery
- Real Estate improvements
- Food waste prevention projects (Organics Grant Program)

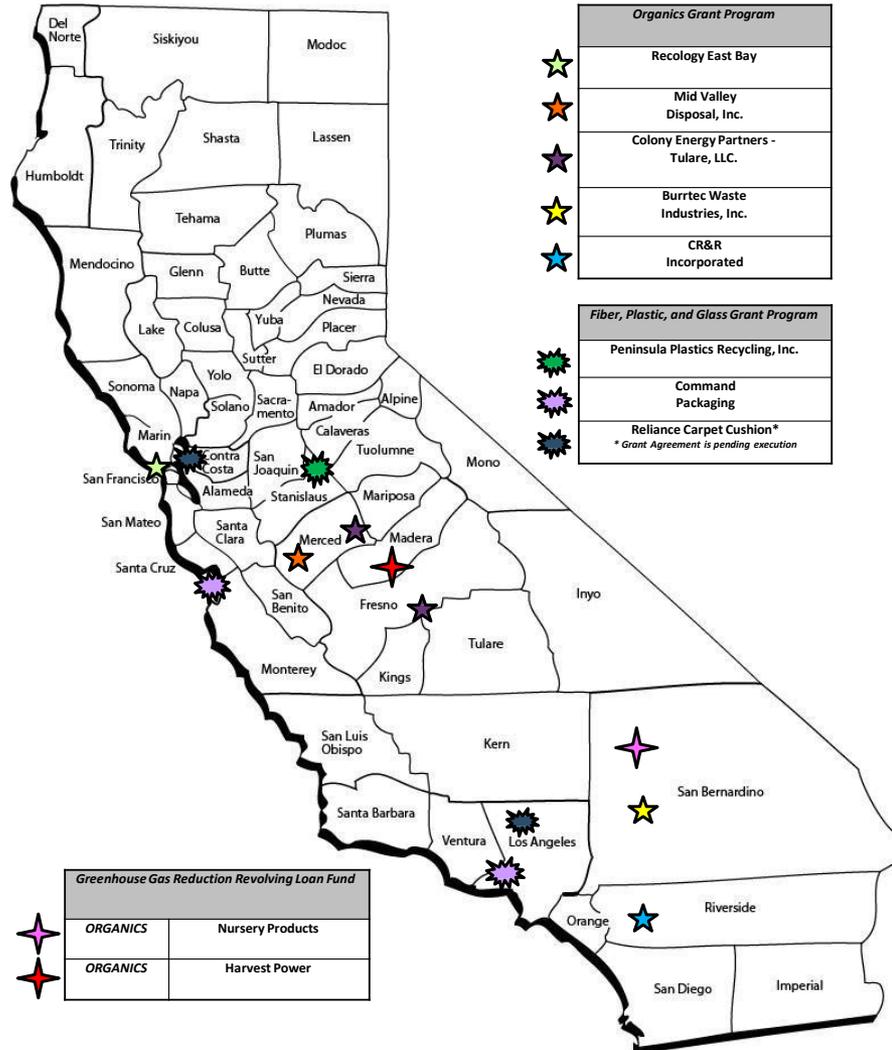
## Project Readiness:

- Permits (Conditional Use, Solid Waste, Notification, etc.) in place or in development
- Environmental review mostly completed (CEQA)
- Work plan
- Budget
- Fiscal soundness

# Greenhouse Gas Emission Reduction Programs

FY 2014-2015

Organics and Recycled Fiber, Plastic, & Glass



## Cycle 2 (FY 15/16)

- Grants - \$?? Million
  - *Subject to approval of Legislature and Governor*
  - Tentative Dates: ??
- Loans - \$5 million for FY 15/16 + \$2.5M remaining from FY 14/15
- Plus RMDZ Loans - \$5 million (+ FY 14/15 \$7 million)

# Grant/Loan Info

Link to all grant/loan documents and application:

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

Link to CalRecycle listserv:

[http://www.calrecycle.ca.gov/Listservs/Subscribe.aspx?  
ListID=135](http://www.calrecycle.ca.gov/Listservs/Subscribe.aspx?ListID=135)



# *Questions?*

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