

# California's Organics Policy Conundrum

Challenges to Meeting New Policy Mandates  
For Organic Materials Management

RMDZ Conference  
Sacramento, California

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# Overview

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- \* Organic Resource Market Challenges
- \* Regulatory Challenges
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- \* Economic Incentives
- \* Wrap Up

# Introduction



CALIFORNIA

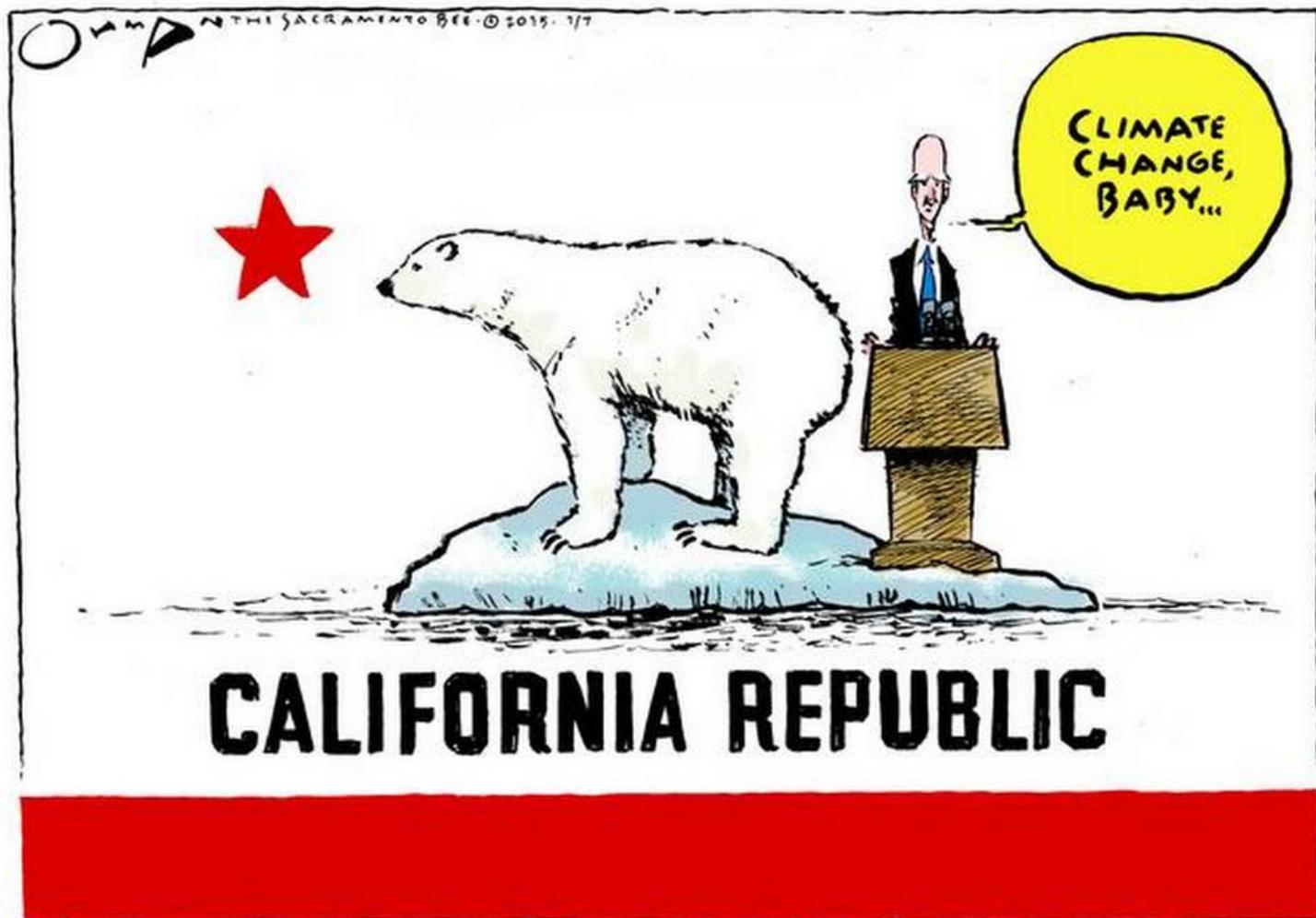
COMPOST COALITION

[californiacompostcoalition.org](http://californiacompostcoalition.org)

- \* a registered Lobbying Coalition created in 2002 by a group of compost operators in response to demands for increased recycling of organic materials and production of clean compost.
- \* represents member organic material recyclers and compost operators with a unified voice on many issues: product safety and standards, government regulations, environmental planning, trade, and marketing.
- \* dedicated to preventing the landfilling of organic resource materials and “closing the loop” by promoting their highest and best use.



# Policy Drivers



# Policy Drivers

## **AB 939 (1989) – The Integrated Waste Management Act**

- \* Local Mandate for Landfill Diversion

## **AB 32 – Global Warming Solutions Act of 2006**

- \* Landfill Methane Emissions Reduction
  - \* Largest man-made source of methane

## **AB 341 (2011)**

- \* Statewide Goal for 75% Recycling or Composting by 2020
- \* 10 million tons of landfilled organics targeted

## **AB 1826 (2014)**

- \* Mandatory Commercial Organics Diversion
  - \* Begins April 2016, phased in until 2020

## **AB 1594 (2014)**

- \* Green Waste – Landfill Alternative Daily Cover
  - \* Diversion credit phased out by 2020

## **SB 605 (2014)**

- \* Short-lived Climate Pollutants
  - \* Subsequent CARB report targets 90% reduction in landfilling of organics by 2025
  - \* Every ton of food diverted from landfill to composting or digestion, GHG reduced by .69-1.04 tons of CO<sub>2</sub>e

# Policy Drivers

## **GHG Reduction Funding (2014)**

- \* Cap and Trade Auctions
- \* CalRecycle Organics Grant Program

## **Healthy Soils Initiative (2015)**

### **SB 1383 (2016)**

- \* Short-lived Climate Pollutants
  - \* Sets statutory standard to target 75% reduction in landfilling of organics by 2025

### **SB 32 (2016)**

- \* Establishes statutory authority to extend ARB climate change programs beyond 2020

### **AB 1613 (2016)**

- \* Budget trailer bill allocating \$40 million to CalRecycle to stimulate waste diversion projects which reduce GHG emissions

# Policy Drivers

	Previous Organics Legislation				SB 1383	
	AB 1826	AB 1594	AB 876	AB 1045	Goal	Timeline
2016	Commercial generators w/ 8 cu. yds. of organic waste			Agencies to begin meetings		
2017	Commercial generators w/ 4 cu. yds. of organic waste		Counties submit 15-year organics infrastructure plans	Publish organics recommendations		CalRecycle to develop regs to meet 2025 goals
2018		Jurisdictions submit green waste plans				
2019	Commercial generators w/ 4 cu. yds. of any waste					
2020		No diversion credit for green waste ADC		AB 1045 sunsets	50% reduction in organics disposal (compared to 2014)	
2021	Commercial gen. w/ 2 cu. yds. of any waste (optional)					
2022						Regs go into effect: statewide mandatory organics diversion
2023						
2024						Statewide penalties for non-compliance
2025					75% reduction in organics disposal & 20% food recovery	

# Organic Resource Market Challenges

- \* MSW - LANDFILL, COMPOST, ANAEROBIC DIGESTION
  - \* Yard Waste – DIRECT LAND APPLICATION
  - \* Wood Waste – BIOMASS PLANTS
  - \* Food Waste – ANIMAL FEED
    - \* F.O.G. – BIODIESEL, BIOENERGY & BIOFUELS
- \* Biosolids - WWTP
- \* Agricultural Wastes
  - \* Crop Residuals – OPEN BURNING, LAND APPLICATION, BIOMASS PLANTS
  - \* Food Processing Wastes - FARMERS
  - \* Manures – ON FARM CO-DIGESTION
  - \* Meat Processing Wastes - RENDERERS
  - \* Livestock Mortalities - RENDERERS
- \* THE FEEDSTOCK FIGHT IS ON!!

# Organic Resource Market Challenges

## Food Waste

\* Perception



# Organic Resource Market Challenges

## Food Waste

\* Reality



# Organic Resource Market Challenges

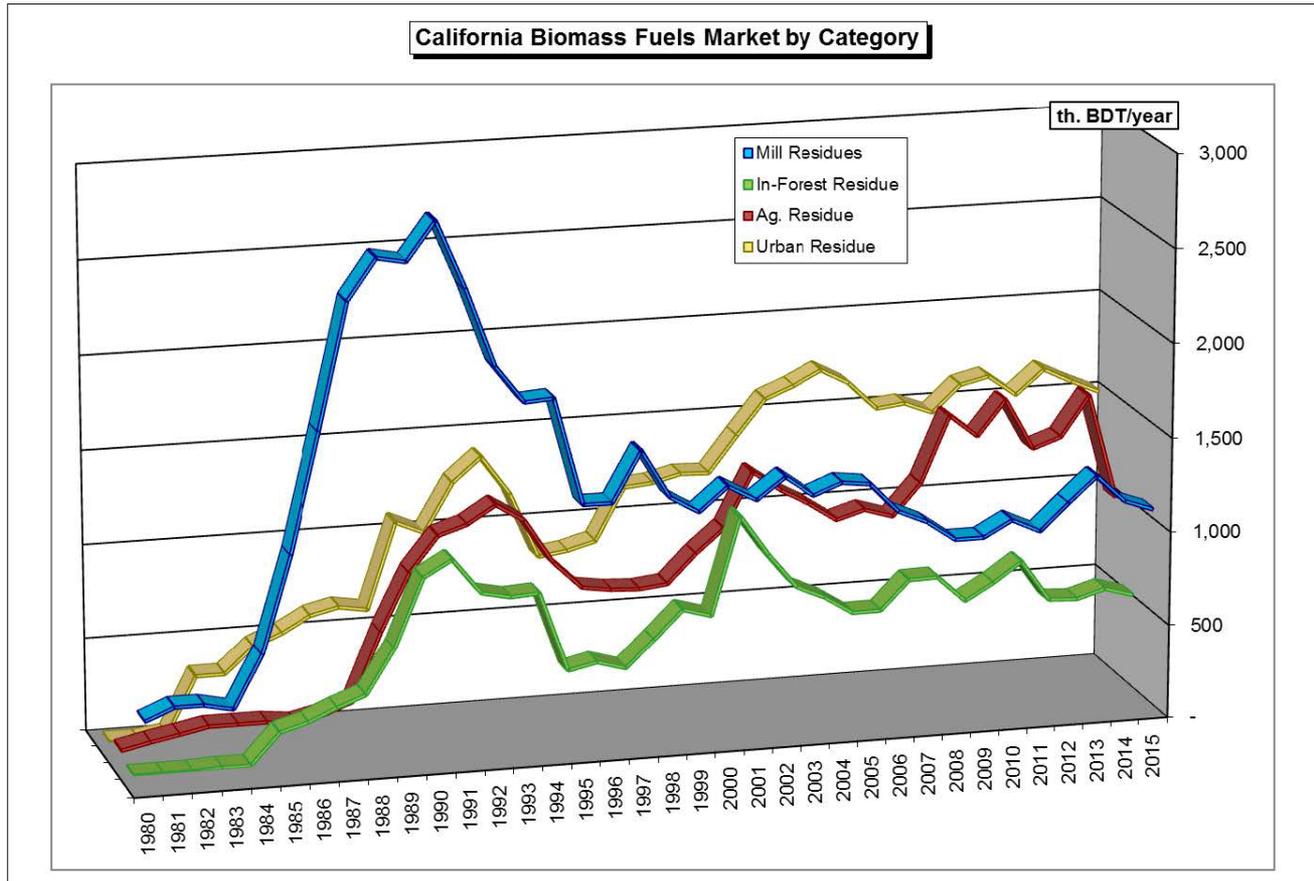
## Wood Waste

# WOODAGEDDON!

- \* Biomass Plant closures
  - \* Non-competitive on price
  - \* Environmental co-benefits undervalued
- \* Policy focus on High-Hazard Forest Materials
  - \* Crowding out urban and agricultural sources
- \* Limited alternative markets

# Organic Resource Market Challenges

## Wood Waste



# Organic Resource Market Challenges

## Wood Waste

Can new biomass arrive in time to bridge from old-line biomass?

### Biomass Conversion facilities

- SB 498 (Lara, 2014) – 100% diversion – 100% renewable energy
- 1 MW - 15,000 TPY – distributed generation
- Co-locate – use 1/3 on site – net meter 2/3 – CHP waste heat use
- 100 facilities – 100 MW – 1,500,000 tons per year

### Feed-In Tariff Implementation – Small-Scale Bioenergy under 3 MW

- SB 1122 (Rubio, 2013) – PUC tariff for 250 MW
  - 110 MW – Urban biomass, wastewater
  - 90 MW - Dairy, agricultural bioenergy
  - 50 MW - Forest biomass
- How much to gasification? 100 MW ? Rest to dairy and wastewater?
- BioMAT - Floor price of 12.77 cents/kwh starting Feb 1, 2016

### Co-benefits:

- Biochar for compost mixes to sequester carbon
- Filtration



# Organic Resource Market Challenges

## Comparative Economics

- \* Chip/grind to ADC = \$8-15/ton



- \* Chip/grind to Land Application = \$10-25/ton
- \* Landfill = \$25-100+/ton

# Organic Resource Market Challenges

## Comparative Economics

\* Composting – windrow = \$25-35/ton



# Organic Resource Market Challenges

## Comparative Economics

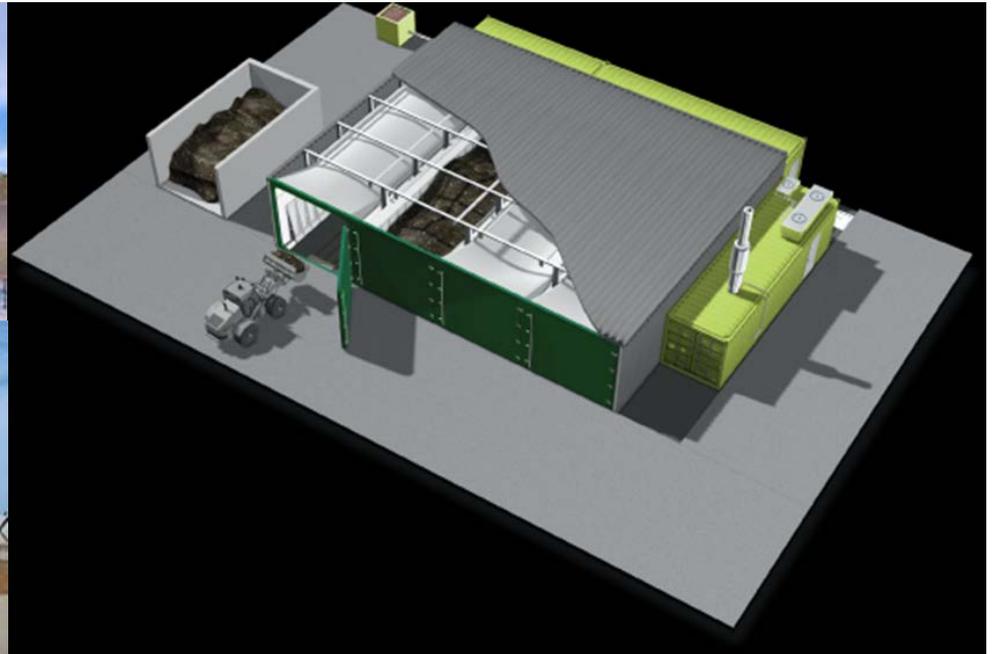
\* Composting w/Gen. WDRs = \$50-70/ton



# Organic Resource Market Challenges

## Comparative Economics

\* Anaerobic Digesters = \$60-80/ton



Digestate likely to still need composting or other treatment

# Organic Resource Market Challenges



# Organic Resource Market Challenges

## Community-based Solutions



SB 1345 (Chesbro, 2007) Failed Legislation for 1 MTY by 2012  
Compost Market Program – PRC 42240-42246 since 1991

Green procurement by local government for parks  
Colorized wood chips  
Storm water filtration

Biosolids co-composting - bulking agent – C:N ratio

Mulches and soil amendment blends – bagged or bulk

# Organic Resource Market Challenges

## If only there were a law!!

### **PUBLIC RESOURCES CODE - PRC**

#### **DIVISION 30. WASTE MANAGEMENT [40000 - 49620]**

*( Division 30 added by Stats. 1989, Ch. 1096, Sec. 2. )*

#### **PART 3. STATE PROGRAMS [42000 - 42999]**

*( Part 3 added by Stats. 1989, Ch. 1096, Sec. 2. )*

#### **CHAPTER 5. Compost Market Program [42230 - 42246]**

*( Chapter 5 added by Stats. 1989, Ch. 1096, Sec. 2. )*

#### **ARTICLE 2. Compost Market Program [42240 - 42246]**

*( Article 2 added by Stats. 1989, Ch. 1096, Sec. 2. )*

#### **42240.**

The Department of General Services and the board, in consultation with other affected state agencies, shall maintain specifications for the purchase of compost by the State of California. The specifications shall designate the state minimum operating standards and product quality standards. The specifications shall be designed to maximize the use of compost without jeopardizing the safety and health of the citizens of the state or the environment.

*(Amended by Stats. 2005, Ch. 383, Sec. 27. Effective January 1, 2006.)*

#### **42241.**

On or after January 1, 1991, the Department of Transportation shall use compost in place of, or to supplement, petroleum-based commercial fertilizers in the state's highway landscape maintenance program.

*(Added by Stats. 1989, Ch. 1096, Sec. 2.)*

#### **42241.5.**

The board may develop a program to increase the use of compost products in agricultural applications. The program may include, but shall not be limited to, the following:

- (a) Identification of federal, state, and local financial assistance.
- (b) Cooperative efforts with appropriate federal and state agencies.

*(Added by Stats. 1997, Ch. 672, Sec. 12. Effective January 1, 1998.)*

#### **42243.**

On or after January 1, 1993, the Department of Forestry and Fire Protection, the Department of Parks and Recreation, and the Department of General Services shall initiate programs to restore public lands that use compost, co-compost, rice straw, and chemically fixed sewage sludge and shall use those products or materials wherever possible.

*(Amended by Stats. 1992, Ch. 1207, Sec. 3. Effective January 1, 1993.)*

#### **42244.**

The board shall evaluate compost, cocompost, and chemically fixed sewage sludge for use as solid waste landfill cover materials or for use as extenders for currently used cover material. Compost, cocompost, and chemically fixed sewage sludge products, when used as a substitute for or mixed with currently approved cover material, shall possess all the physical characteristics required in the definition of a cover material.

*(Amended by Stats. 1996, Ch. 1038, Sec. 16. Effective September 29, 1996.)*

#### **42244.5.**

On or before January 1, 1994, the board shall evaluate rice straw for use as a solid waste landfill cover material or for use as an extender for currently used cover material. Rice straw or rice straw materials, when used as a substitute for or mixed with currently approved cover material, shall possess all the physical characteristics required in the definition of a cover material. The results of the evaluation shall be included in the report required pursuant to Section 40507.

*(Added by Stats. 1992, Ch. 1207, Sec. 4. Effective January 1, 1993.)*

#### **42245.**

On or after January 1, 1992, based on the results of the evaluation conducted in accordance with Section 42244, the board may, on a case-by-case basis, approve the use of compost, co-compost, and chemically fixed sewage sludge, that meet the performance standards for cover material, for up to 25 percent of landfill cover materials or landfill cover extenders.

*(Amended by Stats. 1992, Ch. 1293, Sec. 5. Effective January 1, 1993.)*

#### **42246.**

Any procuring agency that prepares a request for bid for commercial fertilizers or soil amendment products shall document its determination that the use of a compost, co-compost, or chemically fixed sewage sludge would jeopardize public health or safety or would jeopardize the intended result of the project.

*(Added by Stats. 1989, Ch. 1096, Sec. 2.)*

# Regulatory Challenges

## Land-based Issues

- \* Local Land Use
  - \* NIMBY's, NOPE, and BANANAs
  - \* CEQA and Environmental Justice
- \* Public Sector Landfills
  - \* Solid Waste Fee Structure
- \* CalRecycle
  - \* Revision to Compostable Materials Handling and Transfer/Processing Regulations

# Regulatory Challenges

## Water Issues

- \* State Water Resources Control Board
  - \* NPDES Industrial Stormwater Permit
    - \* Qualified Industrial Stormwater Practitioner
    - \* Clean Water Act compliance and lawsuits
  - \* Statewide Waste Discharge Requirements
    - \* Wastewater retention, treatment, and disposal
    - \* Monitoring and reporting

# Regulatory Challenges

## Air Issues

- \* Local Air Districts
  - \* Criteria Pollutants and Ozone Non-attainment
  - \* New Source Review
  - \* Rule 4566 – San Joaquin Valley APCD
  - \* Rule 1133.3 – South Coast AQMD
- \* California Air Resources Board
  - \* AB 32 and GHGs
- \* Climate Action Reserve
  - \* Carbon Credits
- \* ODORS!!

# Economic Incentives

## Grants

- \* CalRecycle Organics Grant Program
  - \* \$24 Million (\$3 M set aside for rural projects)

## Loans

- \* CalRecycle
  - \* GHG Reduction Loan Program
  - \* RMDZ Loans
- \* State Treasurer – CPCFA
- \* Go-Biz

## Tax Credits

- \* State Treasurer – CAEATFA – AB 199
- \* Go-Biz

# Wrap Up

## Questions?

Thank you,

Neil Edgar  
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