

# Unpacking SB 1383

Short-Lived Climate Pollutants (SLCP):  
Organic Waste Methane Emissions  
Reductions



# Overview

- **CARB**

- California's Climate Change Program
- The SLCP & ARB's Role In SB 1383 Regulations

- **CalRecycle**

- Organic Waste: Answering The Basics- What? When? Where? Who? HOW?? Why?
- Unpacking The Regulations

# What?

- Required ARB to present a plan to reduce short-lived climate pollutant emissions below 2013 levels by 2030.
  - Plan approved March 2017.
- Requires reductions of:
  - **Methane by 40%**
  - Hydroflourocarbons by 40%
  - Anthropogenic black carbon by 50%
- Requires ARB work with other agencies to meet required reductions
  - CDFA
  - PUC, CEC
  - CalRecycle

## Senate Bill No. 1383

### CHAPTER 395

An act to add Sections 39730.5, 39730.6, 39730.7, and 39730.8 to the Health and Safety Code, and to add Chapter 13.1 (commencing with Section 42652) to Part 3 of Division 30 of the Public Resources Code, relating to methane emissions.

[Approved by Governor September 19, 2016. Filed with Secretary of State September 19, 2016.]

#### LEGISLATIVE COUNSEL'S DIGEST

SB 1383, Lara. Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills.

(1) The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020. The state board is also required to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants, as defined, in the state.

This bill would require the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030, as specified. The bill also would establish specified targets for reducing organic waste in landfills.

This bill would require the state board, in consultation with the Department of Food and Agriculture, to adopt regulations to reduce methane emissions from livestock manure management operations and dairy manure management operations, as specified. The bill would require the state board to take certain actions prior to adopting those regulations. This bill would require the regulations to take effect on or after January 1, 2024, if the state board, in consultation with the department, makes certain determinations.

This bill would require the state board, the Public Utilities Commission, and the State Energy Resources Conservation and Development Commission to undertake various actions related to reducing short-lived climate pollutants in the state. The bill would require state agencies to consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas.

(2) The California Integrated Waste Management Act of 1989, which is administered by the Department of Resources Recycling and Recovery, establishes an integrated waste management program that requires each

# Organic Waste -SB 1383 Requirements

## The Basics

- ▶ **WHAT?**
  - ▶ What does the law require
  - ▶ What is organic waste
- ▶ **WHEN**
  - ▶ When do we need to achieve this?
- ▶ **WHERE**
  - ▶ Where will it go?
- ▶ **HOW**
  - ▶ How much material?
  - ▶ How do we do this?
- ▶ **WHY**
  - ▶ Why are we doing this?
- ▶ **WHO**
  - ▶ Who is impacted by this?

## Unpacking The Regulations

- ▶ Legal Requirements For the Regulations
- ▶ CalRecycle Approach
- ▶ Entities Included In Regulations
- ▶ Key Regulatory Policies

# What?

## What does SB 1383 Require?

### HSC 39730.6(a)

- *50% reduction* in the level of the statewide disposal of organic waste from the *2014 level by 2020*.
- *75% reduction* in the level of the statewide disposal of organic waste from the *2014 level by 2025*.

SEC. 3. Section 39730.6 is added to the Health and Safety Code, to read:  
39730.6. (a) Consistent with Section 39730.5, methane emissions reduction goals shall include the following targets to reduce the landfill disposal of organics:

- (1) A 50-percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020.
- (2) A 75-percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025.

### PRC 42652.5(a)(2)

- *20 percent improvement in edible food recovery by 2025*.

(2) Shall include requirements intended to meet the goal that not less than 20 percent of edible food that is currently disposed of is recovered for human consumption by 2025.

# What? ---What Is Organic Waste?

Green materials



Wood waste

Food materials



Fiber (Paper and Cardboard)



Biosolids



# When?

## When do we need to achieve this by?

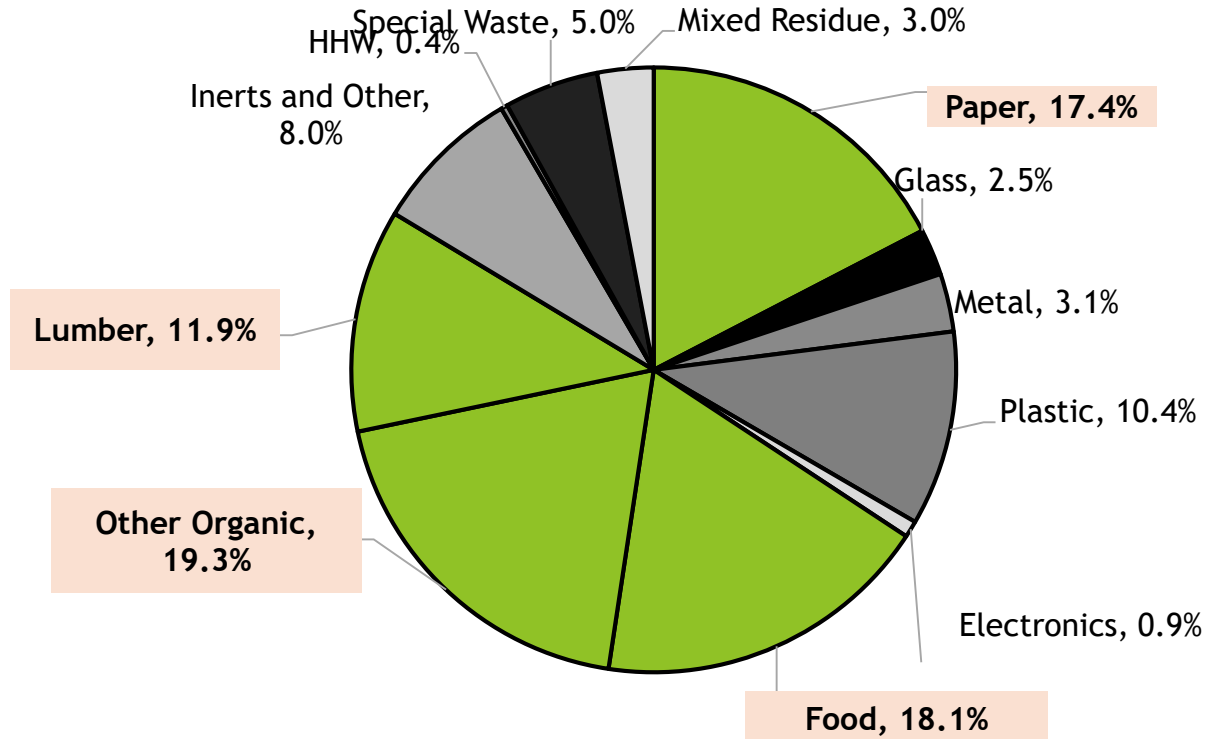
### Key dates for SB 1383

- ▶ 2014 - Organic Waste Disposal Base Year
- ▶ Present -2019 - Informal and formal rulemaking process
- ▶ January 1, 2020 - 50 percent reduction in disposal of organic waste
- ▶ July 1, 2020 - CalRecycle and ARB analysis on market conditions
- ▶ **January 1, 2022** Regulations and CalRecycle enforcement take effect
- ▶ January 1, 2024 - Regulations may require locals to take enforcement
- ▶ January 1, 2025
  - ▶ 75 Percent reduction in disposal of organic waste
  - ▶ 20 Percent increase in edible food recovery

# How?

## How Much Material?

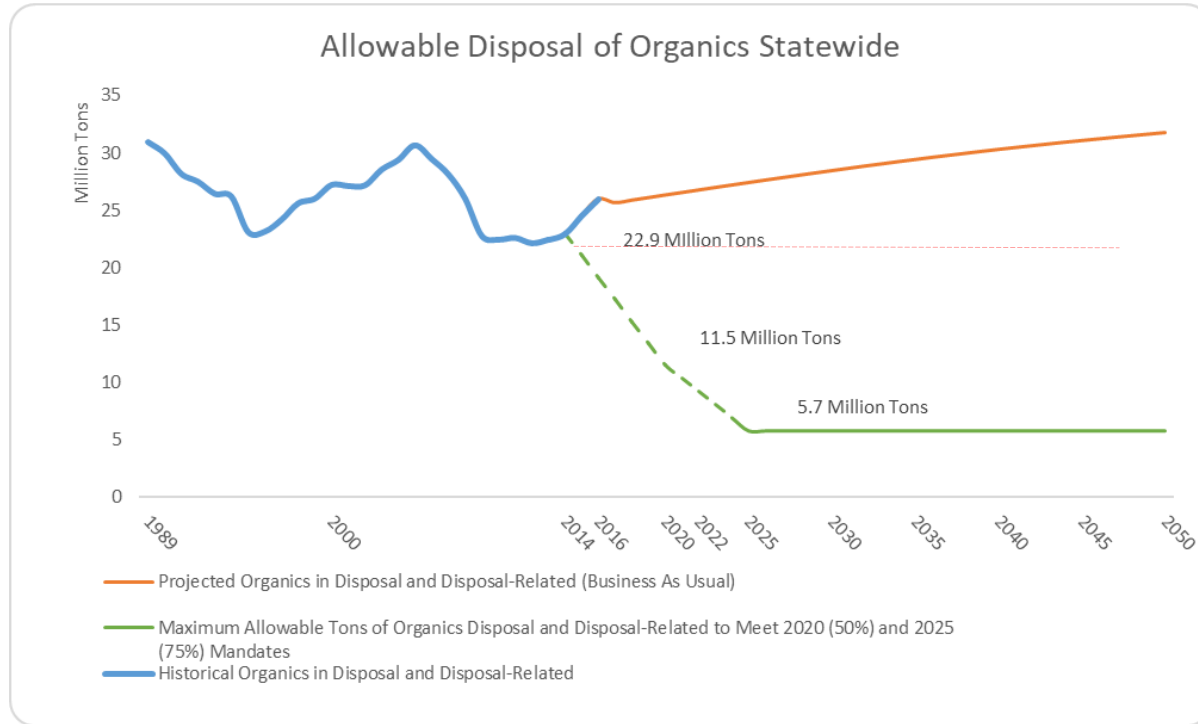
- ▶ +/- 23 Million Tons of Organic Waste
- ▶ +/- 66% of Total Disposal





# How?

## How Much Material?



### Projected Organics Recycling Capacity Needed?

**2020 Additional (+/-) 10 Million TPY**

**2025 Additional (+/-) 20 Million TPY (growing each year thereafter)**

# Where?

## Where Will This Material Go?

### Existing Infrastructure

- ▶ Approximately 180 composting facilities
- ▶ 25 permitted to accept food waste
- ▶ 14 operational digesters
- ▶ Existing WWTPs & Other infrastructure

### New Infrastructure

#### Facilities Needed to Handle Additional 10 million tons

- At 500 TPD → 180,000 TPY → ~50 expansions or new
- At 300 TPD → 100,000 TPY → ~ 100 expansions or new
- At 1000 TPD → 365,000 TPY → ~ 30 expansions or new

30-100 expansions or new facilities needed

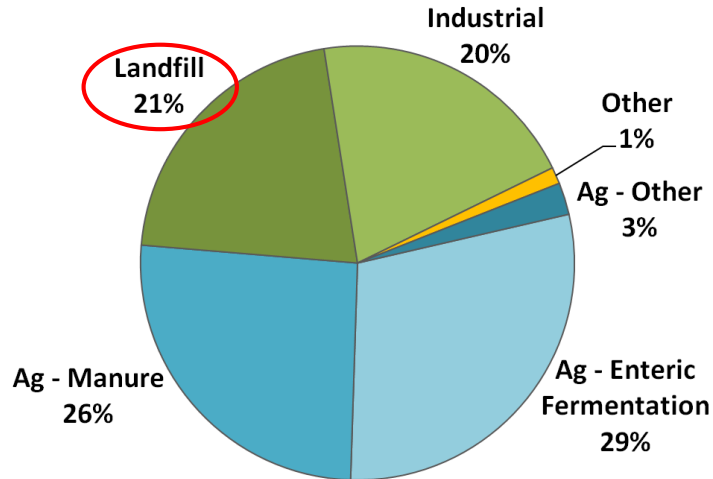
# Who?

## Who Is Impacted By This?

- ▶ **Everyone!**
  - ▶ Consumers
  - ▶ Local Governments
  - ▶ Solid Waste Industry
  - ▶ Food Recovery Organizations
  - ▶ State Entities
  - ▶ End-Users

# Why?

## Why Are We Doing This?



2015 Total CH<sub>4</sub> Emissions: 39.6 MMTCO<sub>2</sub>e

*Help reduce your CH<sub>4</sub> emissions by reducing waste to landfills!*

- **Achieving SB 1383 Organic Waste Reductions**

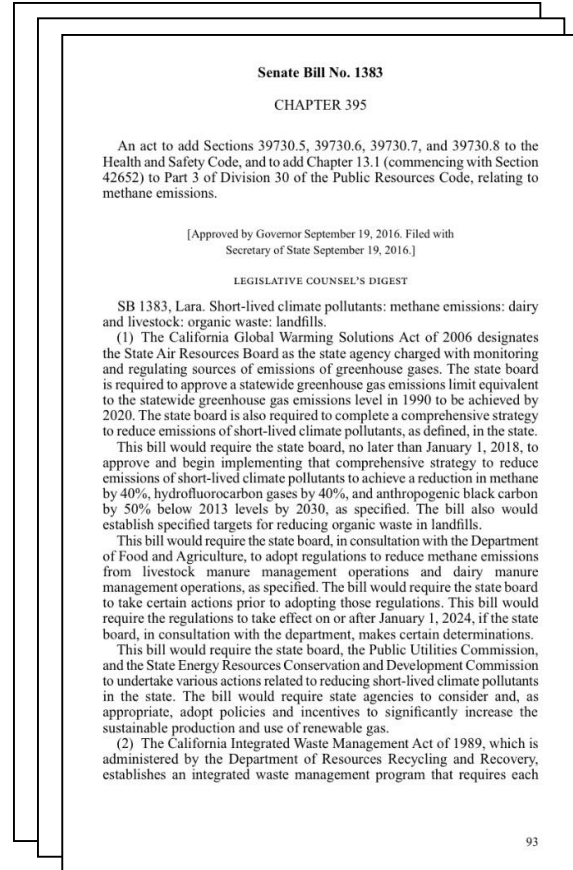
- Reduces landfill emissions by **4 MMTCO<sub>2</sub>e** in 2030.
- Avoids **14 MMTCO<sub>2</sub>e** emissions over the lifetime of waste decomposition.

# HOW?!?!?

## How Do We Do This???

### Unpacking The Regulations

- ▶ Legal Requirements For the Regulations
- ▶ Entities Included In Regulations
- ▶ Impacts and opportunities for the waste water sector



## What does the law require of the regulations?

- ▶ The Legislation Requires:
  - ▶ Methane based disposal and recycling measurements
  - ▶ Source reduction of edible food disposal (2025 target of 20% )
  - ▶ 2014 baseline measurements of organic waste disposal (no generation growth)
- ▶ The Legislation Precludes:
  - ▶ Placing an individual recycling rate mandate on each jurisdiction
  - ▶ “*Good Faith Effort*” compliance (AB 939 Review mechanism)
  - ▶ Placing a numeric organic waste disposal limit on landfills
  - ▶ CalRecycle Enforcement Prior to 2022.
  - ▶ Required enforcement by local government until 2024.

# SB 1383 Regulations: Entities

## Entities included in SB 1383 Regulations

- ▶ Cities and Counties
- ▶ Local Enforcement Agencies
- ▶ Generators (Commercial and Residential)
- ▶ Haulers
- ▶ Solid Waste Facilities and Recyclers (e.g. anaerobic digesters)
- ▶ Food Recovery Organizations
- ▶ End-users of Recycled Organic Products

## Opportunities & Challenges

- ▶ 5 million tons of food waste disposed in 2014 (20% of all disposal).
- ▶ Tremendous opportunity for leveraging existing digester capacity at waste water treatment plants.
- ▶ Increased gas production
- ▶ Difficulties dealing with contamination with waste sector food waste
- ▶ Increased processing of food waste at WWTP will result in increased generation of biosolids requiring management
- ▶ SB 1383 requires a reduction in disposal of biosolids and other organic waste



## Key SB 1383 Regulatory Concepts

- ▶ **Methane Based Disposal and Recycling Quantification**
- ▶ **Collection Requirements**
- ▶ **Planning Requirements**
- ▶ **Market Development, Market Barriers, and Procurement**
- ▶ **Edible Food Recovery**
- ▶ **Solid Waste Facility Standards**
- ▶ **Enforcement**
- ▶ **Reporting**

## Reduction in Landfill Disposal & Methane Reductions

- ▶ **SB 1383 requires the regulations to reduce the landfill disposal of organic waste.**
- ▶ **SB 1383 requires material diverted from disposal to be processed in a way that reduces methane emissions**
- ▶ **Organic Waste Includes Biosolids**
- ▶ **Use of organic waste as Alternative Daily Cover (ADC) at a landfill creates methane and constitutes disposal.**
- ▶ **Regulations require organic waste to be collected and sent to methane reducing recovery activities**
- ▶ **Land Application and composting of biosolids reduces methane and can be considered recovery**
- ▶ **\*Recognize emergency treatment failures that require disposal of biosolids.\***

## Market Development: Market Barriers and Procurement

### ▶ Market Barriers

- ▶ Prohibit ordinances & policies that restrict the recycling and transportation of organic waste, as well as edible food recovery
  - ▶ E.G. Ban on importation of organic waste to an activity/property that will recover organic waste and reduce methane
  - ▶ E.G. Restrictions on material flow that result in disposal.

### ▶ Procurement

- ▶ Required Local Government Procurement of Recovered Organic Waste Products
  - ▶ Compost
  - ▶ RNG
  - ▶ Recycled Content Paper

# SB 1383 Regulatory Process

## Questions

- Webpage: <http://www.calrecycle.ca.gov/climate/slcp/>
- Listserv: <http://www.calrecycle.ca.gov/Listservs/Subscribe.aspx?ListID=152>
- Inbox: [SLCP.Organics@calrecycle.ca.gov](mailto:SLCP.Organics@calrecycle.ca.gov)