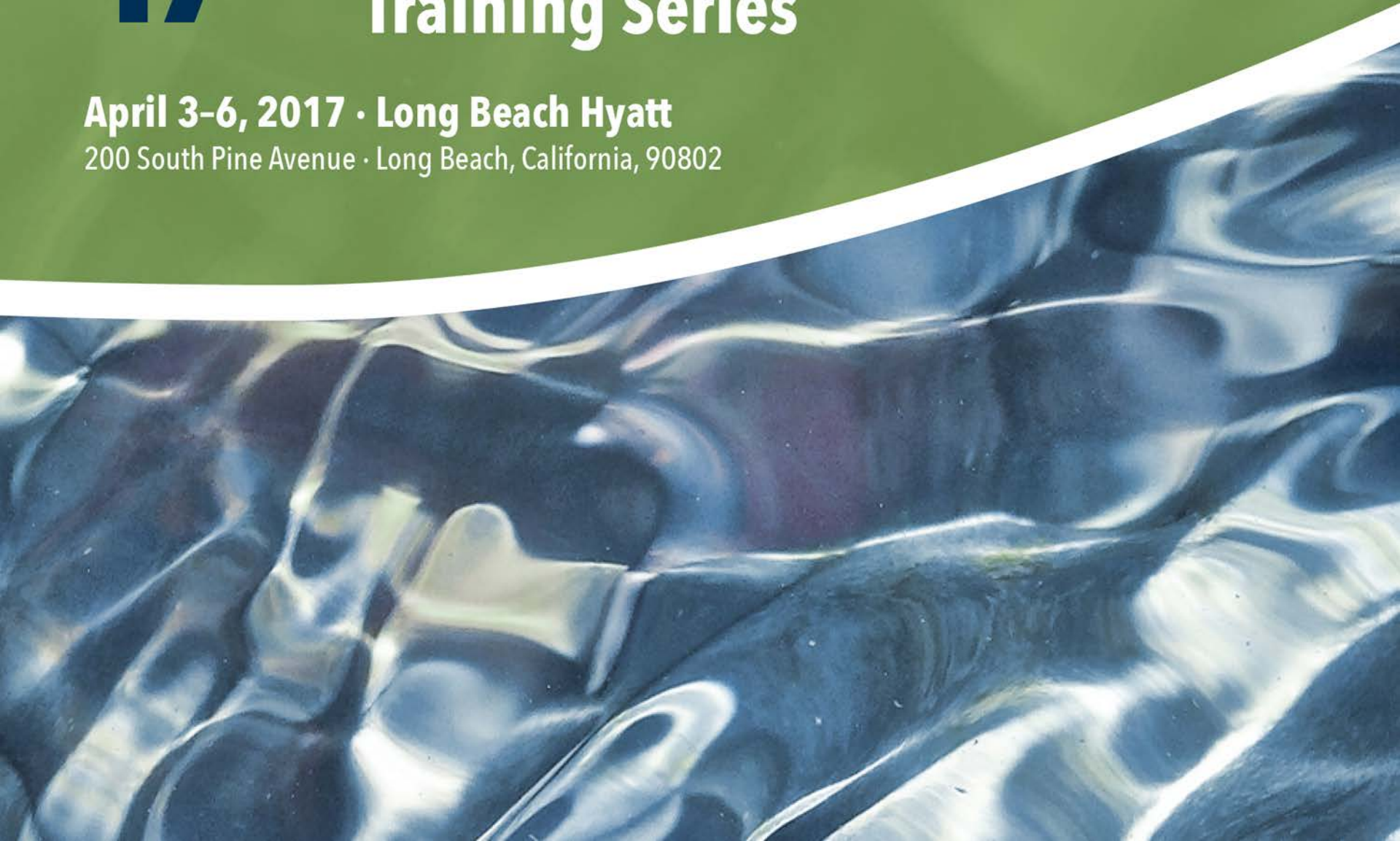


17th Technical Training Series



April 3-6, 2017 · Long Beach Hyatt
200 South Pine Avenue · Long Beach, California, 90802





Organics Legislation and Regulations

Howard Levenson, Ph.D.
Deputy Director, CalRecycle

LEA Training
April 3, 2017

Today's Topics

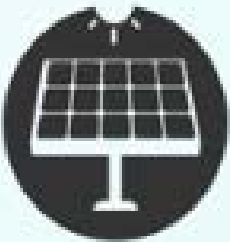
- Setting the stage – tons of organics need homes
 - Organics policy drivers
 - What will it take to get to 75%?
- Infrastructure issues
- SB 1383 Rulemaking

State Carbon Policy Drivers

- Governor Brown's 5 Pillars
- AB 32 and SB 32 (2016)
- Healthy Soils Initiative
- CalRecycle direct policy drivers
- Short-Lived Climate Pollutants / SB 1383

Gov. Brown's 5 pillars to protect the climate

**50%
reduction
in petroleum
use in vehicles**



**50%
renewable
electricity**



**Double energy
efficiency savings
at existing buildings**

**Carbon
sequestration
in the land base**



**Reduce
short-lived
climate pollutants**

CalRecycle – Direct Policy Drivers

AB 939

- 50% diversion requirement on jurisdictions

AB 341

- 75% statewide by 2020

AB 1826

- Mandatory commercial organics recycling

AB 1594

- ADC ≠ recycling after 1/1/20

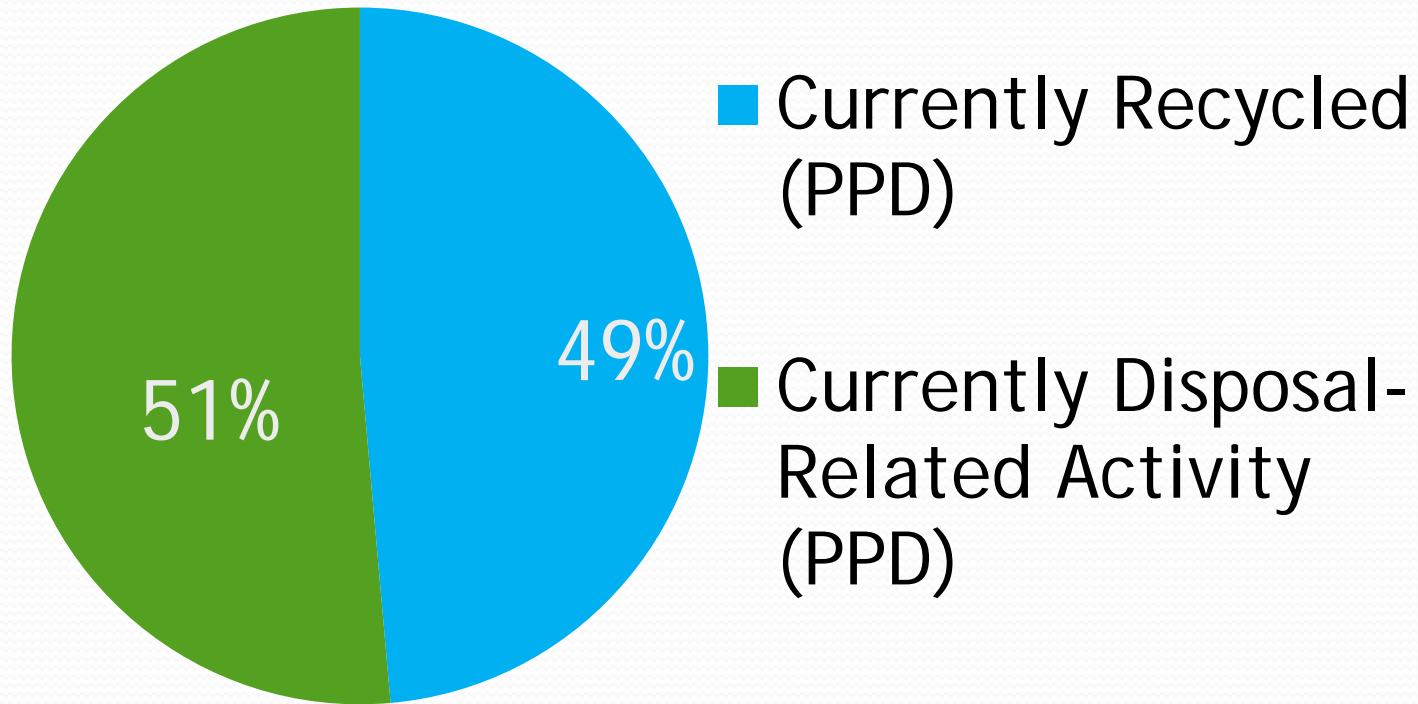
AB 876

- 15-year planning horizon for organics capacity

SB 1383

- Short-lived climate pollutants

AB 341 75% -- Where Are We Now?



What Will AB 341 75% Take?

- Moving > 20 million tons/year out of landfills
- No way to achieve 75% goal without organics
 - > 40% of disposal of “traditional” organics
 - > 10 MT/year suitable for compost, mulch, AD, biomass
 - Food waste biggest category ~6 million tons/year
 - Has to be handled locally or regionally

AB 341 & AB 1826 Enforcement

- Questions about enforcement
- 4-year review of jurisdictions
 - March 2017 – 30 referred for potential compliance orders due to non-compliance with Mandatory Commercial Recycling
 - Review period was 2012-15, so too early for Mandatory Commercial Organics Recycling review
- “At Anytime Review”
 - AB 341 and AB 1826 allow review of compliance at any time
 - January 2017 letter from Director to jurisdictions

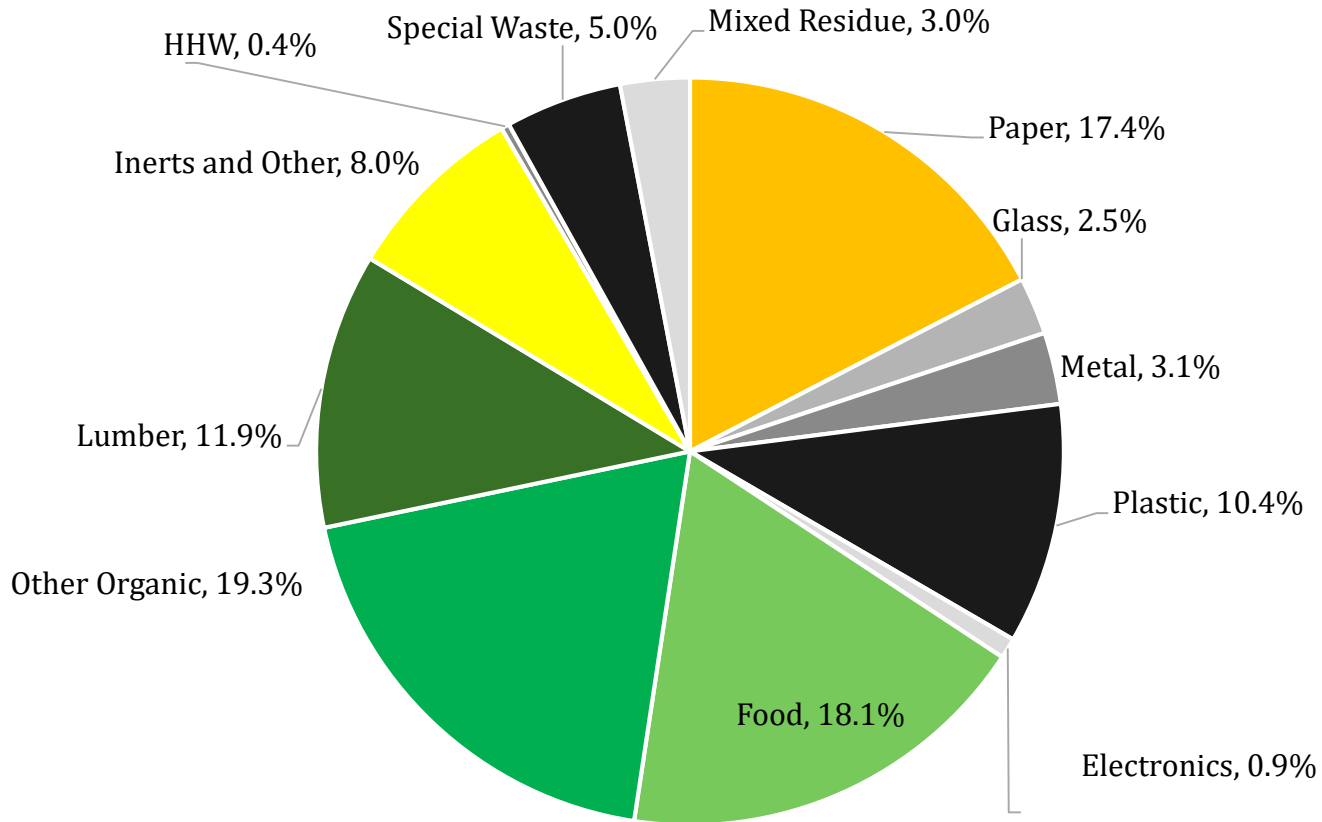
SLCP and SB 1383

- Organics disposal goals:
 - Reduce methane emissions 40% by 2030
 - 50% reduction in disposal by 2020 (from 2014 levels)
 - 75% reduction in disposal of organics by 2025
 - 20% reduction in disposal of edible food waste by 2025

SLCP and SB 1383

- CalRecycle to adopt regs:
 - may require jurisdictions to impose requirements on generators
 - May authorize jurisdictions to impose penalties on generators for noncompliance
 - CalRecycle penalties on jurisdictions for noncompliance
- Informal workshops 2017, formal rulemaking 2018
- Regulation completed 2018/19, effective Jan 2022

Disposal Stream - 2014



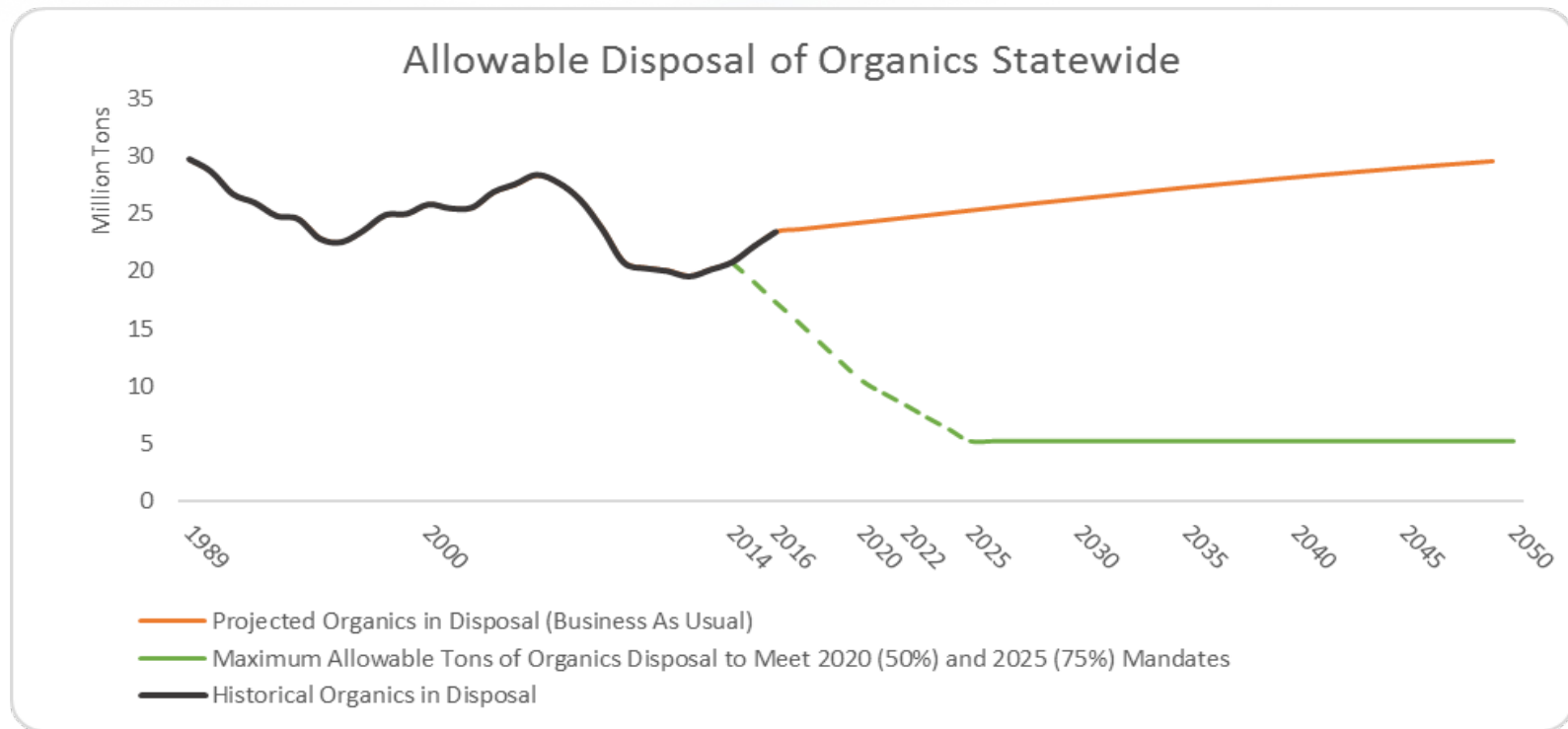


SB 1383 Organic Waste Definition - DRAFT

- Food, green waste, landscape and pruning waste, wood, lumber, fiber/paper, biosolids, digestate, sludges, “natural” carpets and textiles
- Workshop discussion – narrow versus broad, relative priorities such as higher methane potential, etc.

SB 1383 Baseline

- 50% below 2014 level by 2020, 75% by 2025

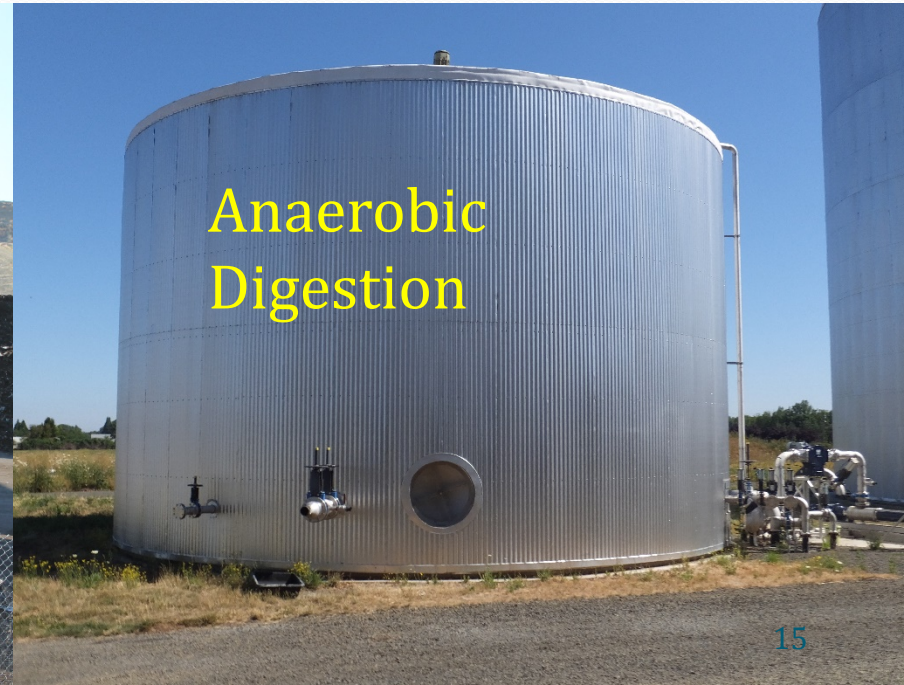


Infrastructure Types

Aerated Static Pile composting



Anaerobic
Digestion



Organics Infrastructure: Facility Needs



- # of facilities 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

Infrastructure Cost Needs

- Composting → \$8-15 M for 100,000 TPY facility
- Anaerobic digestion → \$3-\$50 M for 100,000 TPY
- Upgrade WWTP facility → \$1.3-\$35 M
- Total infrastructure investment of \$2-3 B to handle 10 M TPY organics





Infrastructure Issues

- Feedstock – availability, contamination, cost
- Cost of disposal, local rate structures
- Siting and CEQA
- Permitting/regulations
- Markets and demand
- Financing

Contamination





Siting

- Local land use – planning, zoning
- CEQA
- EJ concerns

Markets

- Cross-agency efforts - CalTrans, DWR, CDFA
- Issues:
 - Monetizing co-benefits
 - Product quality
 - CalRecycle finished product standards - metals, pathogens; glass & plastic < 0.5% by 2017
 - Labeling info: US Composting Council, CDFA
 - Land application of uncomposted green materials, potential spread of pests
 - Pipeline injection and grid interconnection



State Financial Incentives

- CalRecycle: Greenhouse Gas Grants/Loans, RMDZ Loans
- CDFA: Healthy Soils Incentives
- CEC: Alternative Transportation Fuel Grants (AB 118)
- ARB: Low Carbon Fuel Standard
- CEC/CPUC: Renewable Portfolio Standard
- SB 1122 – IOUs procure 250 MW small-scale bioenergy
- BOE/CAEAFTA: Manufacturers Tax Rebates/Credits
- Treasurer: CPCFA Tax-Exempt Bonds, CalCAP

CalRecycle Greenhouse Grants Cycle 2 (FY 16/17)

- GGRF Grants - \$40 million mostly for organics
 - ~\$24 million for organics infrastructure
 - ~\$5 million for food waste prevention/recovery
 - ~ \$9 million for fiber, plastic, glass infrastructure
- GGRF Loans ~\$7 million available
- RMDZ Loans ~\$7 million available

SB 1383 Rulemaking

- Consultation with ARB
- Informal rulemaking workshops in 2017
 - 1st workshops in February
 - 2nd round slated for April/May
- Formal rulemaking 2018, adoption late 2018 or 2019
- Regulations not effective until January 2022
 - Early adoption gives regulated entities time to plan programmatic and budgetary changes needed to be in compliance in 2022



Organic Waste Collection

Concepts:

- Organics collection services **mandatory** – local services to all residential and commercial generators
- But allow generators not participating in jurisdiction's collection services to recycle material **on-site, or backhaul/self-haul** material to facility that recycles organic waste
- Source reduction



Ensure Collected Organics Are Recovered

Concepts:

- **Single Stream Program:**
 - Local waste services include source-separated organics recycling
 - Local waste services include non-putrescible organics (e.g., paper, cardboard, cartons) in curbside recycling programs
- **Mixed Waste Program:** Local waste services include mixed waste that specifically recycles organic waste
- **Recovery rates** for processing and recycling facilities
- **Biweekly hauling of refuse and curbside recycling** bins where weekly source-separated organics recycling services are provided
- Expand AB 876 organics recycling capacity planning requirements



Managing Contamination

Concepts:

- **Local public education and outreach** efforts
- **Compliance monitoring** by jurisdictions and haulers
- **Inspection, monitoring, and reporting of contamination** by haulers and facilities
- **Specify materials** that should not be in organics bins (e.g., composite or coated paper, textiles)



Market Development

Concepts:

- Procurement of recycled organic products
 - Compost
 - Mulch
 - Biogas
 - Cardboard
 - Paper
 - Building materials



Edible Food Definition

DRAFT! DRAFT! DRAFT!

Food intended for human consumption. In order for this edible food to be recovered, it must meet applicable public health and food safety standards.



Generator Access to Food Recovery

Concepts:

- Jurisdiction food recovery programs
 - Coordination with existing food recovery organizations
- Edible food pick-up services for generators
- Edible food recovery services as part of event permits (e.g., farmers' markets, festivals)



Generator Participation in Food Recovery

Concepts:

- Food donation plans for all public facilities
- Food donation plans for edible food generators
- Formal arrangements between edible food generators and food recovery organizations
- Local public education and outreach efforts
- Compliance monitoring by jurisdictions



SB 1383 Reporting

Concepts:

- Monitor program effectiveness
- Track organic waste / methane reduction
- Existing Reporting Systems and Databases
 - Electronic Annual Report (EAR)
 - Solid Waste Information System
 - Biomass Conversion Facility Reporting
 - DRS and new DDRS
 - Waste Tire Hauler manifest system



Potential Enforcement Responsibilities?

Concepts:

CalRecycle enforcement over

- Jurisdictions – remain similar to current system
- Other entities subject to regulations?

Jurisdictions enforcement over

- Haulers?
- Generators?

LEA enforcement over

- Solid waste facilities



Questions?

Howard Levenson, Deputy Director

howard.levenson@calrecycle.ca.gov

<http://www.calrecycle.ca.gov/Listservs/> - choose SLCP