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?

- 51% Currently Recycled (Pounds/Person/Day)
- 49% Currently Disposal-Related Activity (Pounds/Person/Day)
Projected 2020 Tonnages To Reach 75%

- 20 MT Recycled Amount in 2012
- 37 MT More Recycled by 2020
- 23 MT Still could be Disposed in 2020
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% 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
- 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.cdfa.ca.gov/EnvironmentalStewardship/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

Organics and Recycled Fiber, Plastic, & Glass

FY 2014-2015

Greenhouse Gas Reduction Revolving Loan Fund

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<tr>
<th>ORGANICS</th>
<th>Nursery Products</th>
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<td>ORGANICS</td>
<td>Harvest Power</td>
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Organics Grant Program
- Recology East Bay
- Mid Valley Disposal, Inc.
- Colony Energy Partners - Tulare, LLC.
- Burrtec Waste Industries, Inc.
- CR&R Incorporated

Fiber, Plastic, and Glass Grant Program
- Peninsula Plastics Recycling, Inc.
- Command Packaging
- Reliance Carpet Cushion*

* Grant Agreement is pending execution
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:
Questions?
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