ORGANICS MANAGEMENT INFRASTRUCTURE PLANNING FOR AB 876

CBA Symposium, November 2 , 2017

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AB 876

- Estimate amount of organic waste (CY) generated over a 15-year period in county or agency's annual report (commenced August 1, 2017)
- Estimate additional organic waste facility capacity (CY) that will be needed to process that amount of organic waste
- Identify new or expanded organic waste recycling facilities

Cities and counties must plan for organics processing facilities to divert organics from landfills

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Composting Processing Capacity and Organics Material Diversion Study

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Organics Study Tasks

- Current and projected organic materials generated
- Quantities and types of organic materials processed by existing facilities
- Organic processing facility expansions
- Additional composting capacity
- On-site processing technologies
- Existing organic materials backhauling operations
- Food waste reduction activities

Organic Processing Facilities

Existing Facilities in Santa Clara County

- ✓ 11 Santa Clara County facilities interviewed

Santa Clara Facilities

1. Guadalupe Landfill
2. Kirby Canyon Landfill
3. Newby Island Resource Recovery Park
4. Palo Alto Regional Water Quality Control Plant
5. San Jose / Santa Clara Regional Wastewater Facility
6. South County Organics
7. South County Regional Wastewater Authority
8. Sunnyvale Water Pollution Control Plant
9. Sustainable Alternative Feed Enterprise (SAFE) / Sustainable Organics Solutions (SOS) -
10. Z-Best
11. Zero Waste Energy Development Company (ZWEDC)

1) Verify or request the following information.
- Facility category (e.g., composting).
- Permitted feedstocks (e.g., green materials, food waste, agricultural).
- Permitted capacity.
- Maximum permitted throughput.
- Quantity of organic materials used as alternative daily cover (ADC).
- Current commodities accepted
- Current quantities received
- Facility locations that receive material generated within Santa Clara County
2) From which sectors does your facility receive material: residential/commercial/industrial/institutional?
3) How much unused capacity does the facility (ies) have?
4) Does the facility have any plans to increase capacity or expand the types of commodities accepted? If there are plans to increase capacity, what is the current status?
5) Does the facility (ies) accept or would you consider accepting animal waste, manure, compostable diapers, or farm waste?
6) Does your facility have any expectations for future changes in the market for organics material (e.g., anticipated new facilities)? Looking 5 years into the future, what do you see as the needs in terms of additional capacity in Santa Clara County?
7) Do you see any barriers to expanding organics material diversion in Santa Clara County? Are you having any problems with material quality or contamination?

KEY FINDINGS

Organic Processing Facilities

Facility Expansions in Santa Clara County

- Unused permitted capacity however facilities say they running close to through-put capacity
- All anticipated increased quantities of compostables

✓ 4 of the 11 facilities are planning to modify their facilities

- Kirby Canyon, Z-Best, ZWED increasing capacity
- SMaRT Station® adding organics processing

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Organic Processing Facilities

Existing Facilities Outside of Santa Clara County

- ✓108 facilities located outside of Santa Clara County were identified
  - 62 facilities do not have available capacity
  - 46 facilities have some capacity available for organic materials – amount unknown

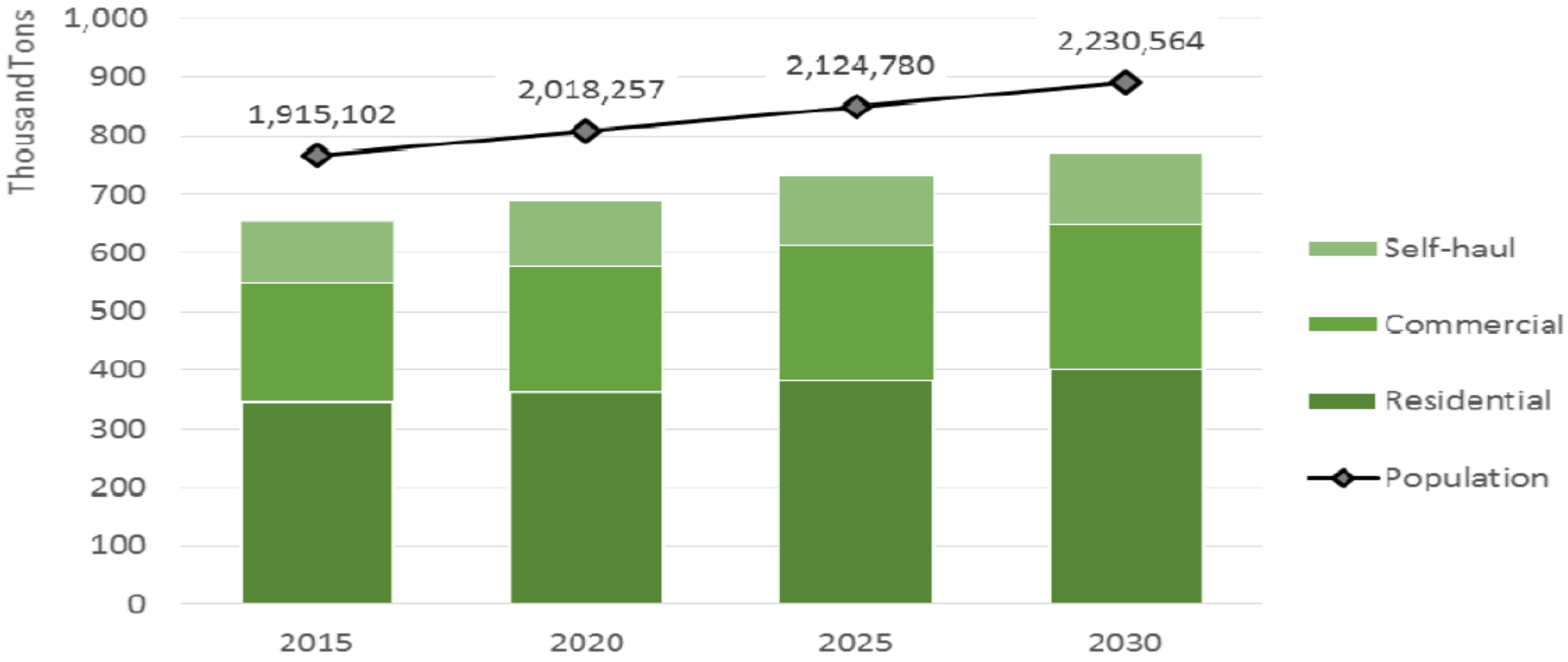
Facility Types by County

Facility Type	Alameda	Contra Costa	Marin	Merced	Monterey	Napa	San Benito	San Francisco	San Joaquin	San Mateo	Santa Cruz	Sonoma	Stanislaus
Anaerobic Digestion	1												
Biosolids Composting at POTWs (Publicly Operated Treatment	1											2	
Composting Facility (Agricultural)			2	6	5	4	2		3		3	5	2
Composting Facility (Green Waste)	2	1	1	4	3	2	1	1	5		4	1	5
Composting Facility (Mixed) - A facility that composts sewage sludge, animal material, or green material, in addition to mixed solid waste	1	1	1	1	4	1			2				4
Composting Facility (Research)					1								
Chipping and Grinding Activity Facility/Operations	4	6	1	1	2		2	1	1	4		4	
TOTAL	9	8	5	12	15	7	5	2	11	4	7	12	11

Current and Projected Organic Materials Generated

- Based on:
  - Population growth
  - Commercial vs residential
  - CalRecycle 2014 WCS
  - Material type/feedstock

Projected Annual Organics Tons by Generator



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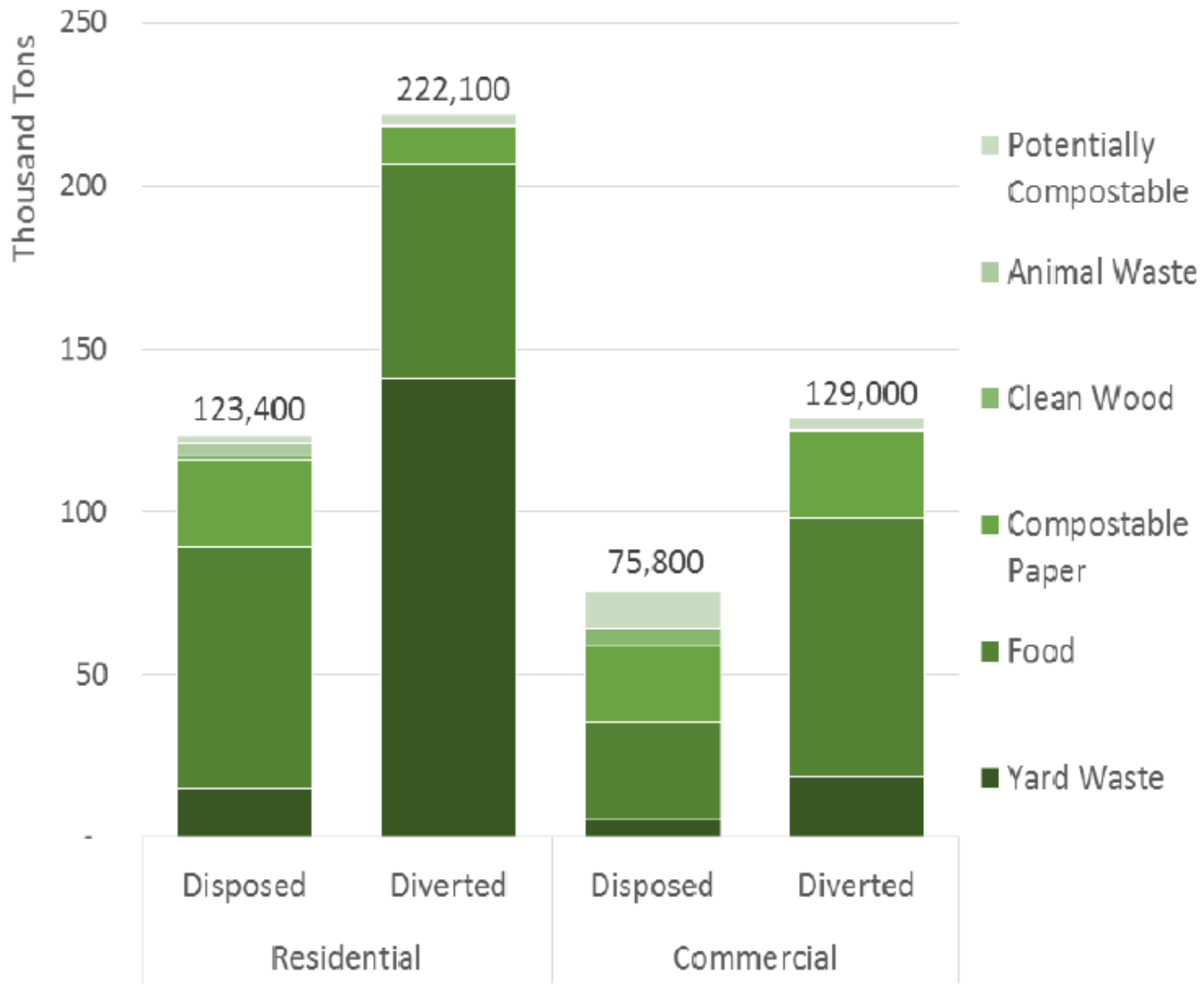
Comparison of Commercial and Residential Organics Disposed and Diverted



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Organics Material Generated

Current and Projected Organic Materials Generated

- ✓657,000 tons of organic materials generated in 2015
  - 416,000 tons (63%) were diverted
  - 241,000 (37%) tons were disposed
- ✓772,100 tons of organics material projected in 15 years
- ✓ **117,000 additional tons annually**

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Organics Material Projected

- ✓Projected at 117,000 additional tons over 15 years
- ✓241,000 tons of organics disposed
- ✓= 358,000 tons need organics processing
- ✓Unknown amount of out of County organics material

Additional Composting Activity

- ✓Research included backyard composting, composting at parks, schools, golf courses, and stables
  - 14,915 tons per year of food scraps are estimated to be composted in backyards (based on Palo Alto study)
  - School onsite composting – composting activities were unknown
  - 253 parks in County, most cities reported composting, grasscycling or hauler collecting organic material
  - Golf courses – composting activities were unknown
  - Horse stables – composting activities were unknown

On-Site Processing Technologies

- ✓Mini-aerobic systems
- ✓Bio-digesters
- ✓Dehydrators

Backhauling Operations

- ✓CalRecycle waste characterization data
- ✓City survey information
- ✓Hauler information

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Food Waste Reduction Activities

- ✓Food rescue activities:
  - Some food rescue activity in most cities
  - 7 food rescue organizations
  - Grant to Joint Venture Silicon Valley and talent partnership
    - Three-year tiered plan of action to develop a regional framework that matches surplus food to authorized agencies

RECOMMENDATIONS

Recommendations-Organic Materials

1. Communicate with local and regional organics processors regarding future plans
2. Establish a collaborative process for hauling and/or processing contracts to facilitate advance planning for collection and facilities
3. Work with CalRecycle to obtain information on facility permitting and expansion plans and proposals
4. Monitor and track grant opportunities
5. Monitor and track the quantity of organics generated from each city

Recommendations-Organic Materials

6. Consider implementing a local organics landfill disposal ban
7. Implement enforcement measures to reduce the quantity of organic materials placed in waste receptacles
8. Create incentives to support the transition to native landscaping that reduces organic waste
9. Develop outreach campaigns to encourage native landscaping, grasscycling, backyard composting, and correct food purchasing
10. Conduct kitchen audits to measure the quantity of waste generated from the residential sector.

Recommendations-Food Waste Reduction

- ✓Continue to work with Joint Venture Silicon Valley to establish a comprehensive food rescue system, and track how much food is rescued and diverted.
- ✓Require or reach out to grocery stores to stock produce that is blemished or less than perfect.
- ✓Educate businesses and residents about the Bill Emerson Good Samaritan Donations Act
- ✓Continue to collaborate with stakeholders to help reduce food waste and improve recovery efforts

Thank You

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