

## Table of Contents for TAC Agenda for September 14, 2017

Table of Contents .....	Page 1
Agenda .....	Pages 2 – 3
Organic Capacity Study .....	Pages 4 – 79
Green Business Report .....	Pages 80 – 96
CEP Report .....	Pages 97 – 99
Recycling Hotline Report .....	Pages 100 – 104
Legislative Priorities .....	Pages 105 – 106

# County of Santa Clara

Recycling and Waste Reduction Commission of Santa Clara County  
Recycling and Waste Reduction Division

1555 Berger Drive, Suite 300  
San Jose, CA 95112-2716  
(408) 282-3180 FAX (408) 280-6479  
www.ReduceWaste.org



## TECHNICAL ADVISORY COMMITTEE MEETING AGENDA

**DATE:** Thursday, September 14, 2017  
**TIME:** 1:30 p.m. – 3:30 p.m.  
**LOCATION:** 1580 Berger Drive  
San Jose, CA 95112

(\*\* Denotes item on which action may be taken)

### 1. Call to Order and Introductions

### 2. Approval of Draft Minutes Meeting of July 13, 2017 \*\*

### 3. Public Presentations

(This item is reserved for persons desiring to address the committee on any matter not on this agenda.) For members of the public who wish to address the committee on any item not listed on the agenda, this would be the appropriate time. The Chair will call individuals in turn. Speakers are limited to three (3) minutes. The committee is not permitted action or extended discussion of any item not on the agenda except under special circumstances. If committee action is requested, the committee may place the matter on a future agenda. All statements that require a response will be referred to staff for reply in writing.

### 4. Sustainable Materials Management (SMM) presentation and discussion\*\* – Lori Topley (75 min)

### 5. Organics Capacity Study\*\* – Tracy Bills (15 minutes)

### 6. RWRC Update\*\* – RWRD Staff (5 min)

### 7. Division Manager's Report/Updates on Countywide Programs – RWRD Staff \*\* (5 min)

A. Disposal Reporting System - <https://eservices.sccgov.org/disposalreporting>

B. Other – TAC Voting representatives (+NGO Nomination); Budget Oct

### 8. Program Update\*\* (5 min)

A. Green Business – Report

B. Composting Education – Report

C. Recycling Hotline – Report

### 9. Subcommittee Reports and Updates\*\* (5 min)

A. Eco-Gardens – Karen Koppett

B. Enforcement –

C. Household Hazardous Waste – Alex Wykoff

D. Legislation – Mark Bowers

E. Public Education – Karin Hickey

**Commissioners:** James R. Griffith – Chair, Linda J. LeZotte – Vice-Chair, Mary-Lynne Bernald, Lan Diep, Susan M. Landry, Teresa O'Neill, Pat Showalter, Rod Sinks, Cat Tucker, Mike Wasserman

**F. Source Reduction/Recycling – Cheri Donnelly**

**10. IC Update\*\* - Lori Topley (5 min)**

**11. Items for Future Agenda/Guest Speakers (5 min)**

**12. Informational Updates and Announcements (15 min)**

**13. Adjournment\*\***

Note: Next Meeting Date is October 12, 2017

*(The following is a 'Parking Lot' list of items to be brought back to TAC at a later date)*

List of Future Agenda Items to be discussed:

- Large Venue Diversion [pre-TAC] (Tony Eulo)
- CalRecycle 75% diversion (Matthew Krupp)
- Community based social marketing (Karen Gissibl)
- Smoking ban (Matthew Krupp)
- TraX (Julie Muir)
- Evaluate long term disposal and processing capacities and opportunities for regional cooperation (TAC Chair)
- Recycling Brokers (Julie Muir)
- Food pilot reports (Mountain View, San Jose, Sunnyvale)
- Regional EPS model ordinance on ice chests, meat trays, pool toys, egg cartons, etc.
- Recycling Markets (Ricky Lopez )
- Clothing Donation (Matthew Krupp)
- Conservation Corp tour [pre-TAC] (Nov)



## Draft Final Report

# Composting Processing Capacity and Organic Materials Diversion Study

Presented to:

**County of Santa Clara**

**Consumer and Environmental Protection Agency**



1553 Berger Drive, Building 1  
San Jose, CA 95112

Presented by:

**SCS ENGINEERS**

7041 Koll Center Pkwy, Suite 135  
Pleasanton, CA 94566

**Cascadia Consulting Group**

1109 1<sup>st</sup> Ave, Suite 400  
Seattle, WA 98101

August 2017  
File No. 01217021

**Offices Nationwide**  
[www.scsengineers.com](http://www.scsengineers.com)

Draft Final Report

**Composting Processing Capacity and  
Organic Materials Diversion Study**

Presented to:

**County of Santa Clara**

**Consumer and Environmental Protection Agency**



1553 Berger Drive, Building 1  
San Jose, CA 95112

Presented by:

**SCS ENGINEERS**

7041 Koll Center Pkwy, Suite 135  
Pleasanton, CA 94566

**Cascadia Consulting Group**

1109 1<sup>st</sup> Ave, Suite 400  
Seattle, WA 98101

August 2017  
File No. 01217021

**Offices Nationwide**  
[www.scsengineers.com](http://www.scsengineers.com)

## Table of Contents

Section	Page
Executive Summary.....	1
1.0 Quantities and Types of Organic Materials Accepted and Processed by Existing Facilities..	3
1.1 Survey of Local Organic Materials Processors.....	3
1.2 Survey of Regional Facilities.....	5
2.0 Current and Projected Organic Materials Generation .....	7
Step 1. Model Disposed and Recovered Organic Materials Composition.....	7
Step 2. Modeled Baseline (2015) Organic Materials Generation.....	8
2.1 Residential Sector Modeling .....	8
2.2 Commercial Sector Modeling .....	9
2.3 Organic Materials Projections.....	10
2.3.1 Current and Projected Permitted Capacity .....	10
2.3.2 Current and Projected Tonnage by Generator.....	12
3.0 Processing Facility Development and/or modification .....	14
3.1 Permitting Requirements and Regulations .....	14
3.0.1 Compostable Materials Handling Permit .....	14
County Siting Element.....	15
Odor Impact Minimization Plan.....	16
California Environmental Quality Act.....	16
Land Use Permits.....	16
Air Quality.....	16
Water Quality.....	17
3.2 Proposed and Pending Facility modifications .....	17
4.0 Additional Composting Capacity .....	19
4.1 Backyard Composting.....	19
4.2 Mid-Sized Compost Operations at Schools and Institutions.....	21
4.3 Parks, Community Gardens, and Farms.....	22
4.4 Golf Courses.....	23
4.5 Horse Stables and Boarding .....	23
5.0 OnSite Processing Technologies .....	27
5.1 Small Scale Processing Technologies.....	27
5.1.1 Mini-Aerobic Systems .....	27
5.1.2 Bio-Digesters.....	29
5.1.3 Dehydrators .....	30
5.2 OnSite Processing Opportunities.....	32
6.0 Backhauling of Organic Material.....	36
7.0 Food Waste Reduction Programs.....	37
7.1 Food Waste Reduction Programs in Santa Clara County.....	37
7.2 Recommendations for Additional Efforts .....	39
7.2.1 City Food Waste Reduction Efforts .....	39
7.2.2 Companies Providing Food Recovery .....	41

7.3 Food Recovery Recommendations ..... 42

8.0 Conclusions and Recommendations..... 44

8.1 Conclusions ..... 44

8.2 Recommendations..... 45

### List of Exhibits

No.	Page
1. Comparison of Commercial and Residential Disposed and Diverted Materials.....	10
2. Projected Permitted Capacity and Generation.....	12
3. Projected Annual Organic Tons by Generator .....	13

### List of Tables

No.	Page
1. Organic Materials Facility Key Questions .....	4
2. Summary of Facility Type by County.....	5
3. Residential Organic Materials Stream .....	9
4. Commercial Organics Material Stream.....	9
5. Current and Future Processing Quantities and Permitted Capacities .....	11
6. Compostable Material Handling Facility Tiers.....	15
7. Facility Modifications .....	18
8. Number of Composting Bins Sold by City.....	19
9. Backyard Composting by City .....	20
10. Projected Backyard Composting 2016 to 2020 (tons per year).....	21
11. Onsite Composting at Schools .....	21
12. Onsite Composting at Large Institutions .....	22
13. Composting Operations at Parks, Community Gardens and Farms .....	24
14. Composting Operations at Golf Courses .....	25
15. Composting Operations at Horse Stables .....	26
16. Potential On-site Composting Opportunities .....	33
17. Food Waste Reduction Activities .....	40

### Attachments

1. Attachment A – Organics Processing Capacity Matrix
2. Attachment B – Additional Composting Capacity Matrix
3. Attachment C – Food Waste Reduction Matrix

## EXECUTIVE SUMMARY

The County of Santa Clara (County) contracted with SCS Engineers (SCS) to complete a Composting Processing Capacity and Organic Materials Diversion Study (Study). The purpose of the Study was to provide the County with data that will assist in planning for the management of organic materials, and complying with legislative and regulatory requirements, including Assembly Bill (AB) 1826 and Senate Bill (SB) 1383. The project included evaluating the existing capacity of compost facilities, quantifying organics generation and diversion within Santa Clara County, and preparing projections of future organics generation.

The information included in this report includes:

- Current and projected organic materials generated by the commercial and residential sectors.
- Quantities and types of organic materials accepted and processed by existing facilities.
- Requirements for organic materials processing facility development or expansion.
- Additional composting capacity, such as backyard composting, and mid-sized composting operations at schools, institutions, parks, community gardens, farms, golf courses, and horse stables.
- On-site processing technologies.
- Existing organic materials backhauling operations.
- Food waste reduction programs in the County.

The key findings from this study are:

1. It is estimated a total of 657,000 tons of organic materials were generated in Santa Clara County in 2015. Of the 657,000 tons of organic materials, 416,000 tons (63%) were diverted by some method of organics processing, and 241,300 (37%) tons were disposed.
2. The 11 Santa Clara County facilities interviewed for this project anticipate increased quantities of compostables (mixed food and compostable paper) will be collected from residential and commercial sources and require processing. Although the findings show unused permitted capacity, most interviewees reported that facilities are running close to through-put capacity and some are turning away material or transferring material out-of-county for processing.
3. Five of the 11 facilities are planning to modify their facilities, and three are increasing their tonnage to accommodate additional organic materials. The Sunnyvale SMART station and the Waste Management Davis Street Transfer station are both adding organics processing capabilities, but are not increasing the maximum amount of permitted tonnage of waste received at their facilities. For the other facilities, the planned permitted tonnage increases range from 500 to 650 tons per day of organic materials, including source separated food scraps, compostable material, mixed MSW, and green waste.
4. The estimated amount of additional capacity projected to be available at organics facilities is 456,000 to 639,000 tons per year, which includes both current permitted

capacity and potential expansion. No expansions have completed permitting and final capacity is subject to change.

5. A total of 108 organics material processing facilities located outside of Santa Clara County (within 100 miles) were identified as part of the project. From this list, 62 were identified as not having available capacity for Santa Clara organics, either because they do not accept material from the public, or they are located too far from Santa Clara County to be considered viable. Three facilities do not have available capacity, and 40 facilities have some capacity available for organic materials, however the data is provided as a range, and therefore a specific number is not available.
6. Research on additional organics processing capacity included backyard composting, as well as composting occurring at parks, schools, golf courses, and stables. The information provided by the municipalities and the phone calls made to businesses did not provide significant data on the quantity of organic materials managed onsite.
7. Food rescue activities in the County include a number of gleaning organizations that harvest and donate fruits from trees, and seven food rescue organizations that utilize websites to connect donors with recipients. In 2016, Santa Clara County awarded a grant to Joint Venture Silicon Valley and Talent Partnership to work on a three-year tiered plan of action to help reduce hunger and food waste in Silicon Valley by developing a regional framework that matches surplus food to authorized agencies.

The results of the study indicate the need for additional efforts to reduce the quantity of organic waste generated in the County, and to divert organic materials from disposal. It would be valuable to establish a system that monitors and tracks the types and quantities of organic materials that are generated in each city to understand how much organic material is in the waste stream, how much is disposed, and how much is diverted. The County should consider establishing a metric to understand how much food is rescued and diverted from landfills. Additionally, the County should consider a local organics ban that would require all organic material to be diverted, and implement enforcement actions for businesses and residents if organic materials are placed in waste containers.

New capacity to manage organic materials is necessary. It will be important for the County to establish and maintain communication with organics processors to gain an understanding of the planned capacity and timeline for adding new organics processing capacity. Furthermore, it is recommended the County work with CalRecycle to establish access to information regarding the proposed, planned, and permitted modifications and/or new facilities for organics processing.

## 1.0 QUANTITIES AND TYPES OF ORGANIC MATERIALS ACCEPTED AND PROCESSED BY EXISTING FACILITIES

In order to identify the types and quantities of organic materials that are taken to local processing facilities, and the existing capacity to process the materials, two surveys were performed: one of organic materials processing facilities within Santa Clara County; and one of regional facilities within 100 miles of Santa Clara County. The surveys were conducted to estimate the current processing at facilities within the County, as well as to calculate local and regional composting capacity.

### 1.1 SURVEY OF LOCAL ORGANIC MATERIALS PROCESSORS

The first survey focused on the organic processors located inside the County. A total of 11 local organic materials processors were identified, including composting, landfills, and Publicly Owned Treatment Works (POTWs)/wastewater treatment facilities. Landfills were included with the processing facilities because they mulch the organics material they receive, and in some cases, divert it to another processor. During the kick-off meeting, it was decided to remove Fats Oils & Grease (FOG) rendering businesses and biodiesel producers, and to remain focused on the organic materials processing facilities. The 11 facilities include:

1. Guadalupe Landfill - 15999 Guadalupe Mine Rd., San Jose, CA 951202.
2. Kirby Canyon Landfill – 910 Coyote Creek Golf Dr., Morgan Hill, CA 95037
3. Newby Island Resource Recovery Park – 1601 Dixon Landing Rd., Milpitas, CA 95035
4. Palo Alto Regional Water Quality Control Plant – 2501 Embarcadero Way, Palo Alto, CA 94303
5. San Jose / Santa Clara Regional Wastewater Facility – 700 Los Esteros Rd., San Jose, CA 95134
6. South County Organics – 3675 Pacheco Pass Highway, Gilroy, CA 95020
7. South County Regional Wastewater Authority – 1500 Southside Dr., Gilroy, CA 95020
8. Sunnyvale Donald M. Somers Water Pollution Control Plant - 14444 Borregas Ave., Sunnyvale, CA 94089
9. Sustainable Alternative Feed Enterprise (SAFE) / Sustainable Organics Solutions (SOS) - 1080 Walsh Ave, Santa Clara, CA 95050
10. Z-Best – 980 CA-25, Gilroy, CA 95020
11. Zero Waste Energy Development Company (ZWEDC) – 685 Los Esteros Rd. San Jose, CA 95134

Initially, research was performed to collect data on each facility, using CalRecycle’s Solid Waste Information System, Facility Information Toolbox (FacIT) Detailed Facility Search database.<sup>1</sup> For each facility, the following information was obtained:

- 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)

Interviews were conducted with the facilities to verify the types and quantities of organic materials they currently process, plans for facility modifications, and other related information. In advance of the interviews, a letter was prepared and sent to the processors explaining the purpose and objectives of the Study, and requesting their participation in an interview. To ensure the interviews were productive, a survey guide of key questions was developed and is included in **Table 1**.

**Table 1. Organic Materials Facility Key Questions**

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?

<sup>1</sup> **CalRecycle information sources:**

SWIS Facility/Site Search, [www.calrecycle.ca.gov/swfacilities/directory/Search.aspx](http://www.calrecycle.ca.gov/swfacilities/directory/Search.aspx);

Disposal Reporting System (DRS): Alternative Daily Cover (ADC) Tons by Facility and Material Type, [www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/ADCSiteTons.aspx](http://www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/ADCSiteTons.aspx);

Facility Information Toolbox (FacIT) Detailed Facility Search,

During the interviews, processors reported that their ability to expand existing operations or build new facilities is highly dependent on obtaining air quality permits. Due to expanded collections, all facilities anticipate increased quantities of compostables (mixed food and compostable paper from residential or commercial sources) and see the need to add processing capacity. Many processors are opposed to composting diapers, even if made from compostable materials. Although the findings show unused permitted capacity, most interviewees reported their facilities are running close to through-put capacity, and some are turning away material or transferring material out-of-county for processing. Almost all sites reported having plans to apply for increased permitted capacity to accept more material or expand their facility. Processors were only able to predict capacity within the next five years.

## 1.2 SURVEY OF REGIONAL FACILITIES

SCS surveyed existing organic materials processing facilities to identify capacity in counties within 100 miles of Santa Clara County. In order to understand how this regional capacity might draw from Santa Clara County generators, SCS identified the facilities from the CalRecycle website, including the permitted volumes, annual throughput capacity, and actual incoming volumes of material. This survey was performed by researching the CalRecycle Solid Waste Information System, the Facility Information Toolbox (FacIT) Detailed Facility Search, and lists that have been developed by other municipalities. Information detailing the type and quantity of facility types is located in **Table 2**.

**Table 2. Summary of Facility Type 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	
<b>TOTAL</b>	<b>9</b>	<b>8</b>	<b>5</b>	<b>12</b>	<b>15</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>4</b>	<b>7</b>	<b>12</b>	<b>11</b>

A total of 108 organics material processing facilities located outside of Santa Clara County (within 100 miles) were identified as part of the project. From this list, 62 were identified as not having available capacity for Santa Clara organics, either because they do not accept material from the public, or they are located too far from Santa Clara County to be considered viable. Three facilities do not have available capacity, and 40 facilities have some capacity available for organic materials, however the data is provided as a range, and therefore specific available

capacity at each facility is difficult to determine. This is due in part to the way CalRecycle reports the daily and annual throughput for each facility. For example, a facility could have a range from 0 to 10,000 tons a year, while another facility could have a range of 80,000 to 240,000 tons a year. This range is provided to allow for a level of confidentiality, however it is unclear where the facility falls within the range. Additionally, in many instances, the top of the range for annual throughput was the same as the permitted capacity, therefore the facility may or may not have available capacity and the only way to determine the remaining capacity would be to contact each facility, which was outside the scope of work for this project. For further detail on the facilities located Outside-of-County, please refer to **Attachment A**.

## 2.0 CURRENT AND PROJECTED ORGANIC MATERIALS GENERATION

The SCS team used waste characterization data from similar communities to model the organic materials generated within the County. The steps below describe the methodology to model the quantities of organic materials generated by the residential and commercial sectors, as well as how the model would account for material that is currently processed.

### Step 1. Model Disposed and Recovered Organic Materials Composition

A modeling composition was performed using composition data from representative Bay Area communities included in the 2014 CalRecycle statewide study, composition data from City of Seattle waste characterization studies (2012-2015), and unpublished private sector data from the Bay Area. Distinguishing characteristics that were considered when selecting representative compositions for use in modeling included: similarity of business types and sizes (by employment); level of urbanization; geographic proximity; and availability of waste collection and diversion systems such as single-stream recycling collection, acceptance of food waste in the organics material curbside service, and use of mixed waste processing.

The modeled composition was performed for seven material types: yard waste, food, compostable paper, clean wood, animal waste, potentially compostable material, and other waste. Specific sources and assumptions used to model disposal and organic materials composition by generator are described below.

- **Single-family residential.** The modeled single-family disposal and organic materials composition was from the 2014 CalRecycle residential composition, composition data from City of Seattle waste characterization studies (2012-2015), and unpublished private sector data from the Bay Area.
- **Multifamily residential.** The modeled multifamily disposal composition was from the 2014 CalRecycle generator-based data. To model disposal and organic recovery compositions for San Jose multifamily material that was sent to the Newby Island mixed waste processing facility, the team relied on the SMaRT Station Annual Report for 2015-2016 and the City of Palo Alto Waste Characterization Report from 2013.
- **Commercial.** Weighting factors were assigned to the CalRecycle composition data by commercial sector based on Santa Clara County's commercial sector employment profiles (as reported by the California Employment Development Department). The statewide modeled data was then refined by using unpublished private sector data from the Bay Area. The disposed composition of commercial material sent to mixed waste processing at the SMaRT Station and Newby Island was estimated by using the composition of residuals from mixed waste processing from the SMaRT Station Annual Report for 2015-2016 and the 2013 City of Palo Alto Waste Characterization Report.

- **Self-haul.** Self-haul includes material that generators disposed directly at transfer stations or the landfill. The team modeled self-haul disposal composition and organic materials recovery rates from a combination of 2014 CalRecycle self-haul composition data and data from the city of Seattle and King County in Washington, both of which have aggressive organics material recovery programs in place. Self-hauled organic materials were assumed to be exclusively yard waste.

## Step 2. Modeled Baseline (2015) Organic Materials Generation

Reported tonnage data from haulers was used for waste and organic materials collection from cities in Santa Clara County and unincorporated areas to estimate the quantities of organic materials generated (both disposed and recovered) in 2015 for the residential and commercial sectors. Available hauler data covered 96 percent of the County by population. The remaining four percent was modeled based on per capita discard rates from hauler data for each of the cities and the respective population for each city. Recovered organic tons were estimated from hauler reported data and from the processor interviews. The modeled disposal and recovered organic materials compositions were used from the previous step to estimate the quantity of organic materials in the disposed waste stream.

To estimate self-haul quantities, Santa Clara County reported tonnage was combined with composition data from City of Seattle waste characterization studies (2012-2015) and representative Bay Area communities. The estimated self-haul quantities from these jurisdictions by population was scaled to estimate the organics material quantities generated by the self-haul sector in Santa Clara County.

The results from the modeling composition study are included in the following sections.

### 2.1 RESIDENTIAL SECTOR MODELING

To model the residential waste, waste characterization data, as noted above in the methodology, was used to identify recent residential composition data from jurisdictions that are similar to Santa Clara County in both demographics and service levels. This took into account the mixed-waste processing used in some jurisdictions in Santa Clara County. The composition data was applied to County-supplied residential waste tonnages to estimate the quantities of materials, including organics material, generated in Santa Clara County.

The model was developed to understand the breakdown of organic materials found in the residential sector. The residential sector generates approximately 345,500 tons of organic materials per year, approximately 140,600 tons more than the commercial sector.

**Table 3** shows the breakdown of organic materials found in the residential organic materials stream. Food waste is the largest organic material type that is estimated to be disposed, accounting for 60 percent, yet only 30 percent is diverted. Yard waste is the largest contributor to materials being diverted at 63 percent or 140,500 tons per year.

**Table 3. Residential Organic Materials Stream**

Material Type	Disposed		Diverted		Generated	
	%	Tons	%	Tons	%	Tons
<b>Organic Materials</b>	<b>88%</b>	<b>123,400</b>	<b>37%</b>	<b>222,100</b>	<b>55%</b>	<b>345,500</b>
Yard Waste	12%	14,800	63%	140,500	45%	155,300
Food	60%	74,100	30%	66,500	41%	140,600
Compostable Paper	22%	26,800	5%	11,200	11%	38,000
Clean Wood	2%	1,900	0%	300	1%	2,200
Animal Waste	2%	3,100	0%	100	1%	3,200
Potentially Compostable	2%	2,700	2%	3,500	2%	6,200

*Tons by material may not sum to total due to rounding.*

## 2.2 COMMERCIAL SECTOR MODELING

The disposed quantity of organics material was calculated by subtracting the quantity currently being processed (calculated through facility and processor interviews in Section 1) from the generated quantity (calculated as described above). Estimates of current organic commodities and future organic commodities remaining in the disposed waste stream, for the commercial/industrial/institutional sectors are described below.

Organic materials remaining in the disposed waste stream could be targeted for additional diversion. The model was developed to understand the breakdown of organic materials found in the commercial sector. The commercial sector generates approximately 204,900 tons of organic materials per year, approximately 140,600 tons less than the residential sector.

**Table 4** shows the breakdown of organic materials found in the commercial organics material stream. Food waste is the largest organics materials type that is being disposed; accounting for 39 percent, with 62 percent being diverted. Food waste is also the largest type of material being diverted and generated, accounting for 53 percent or 109,300 tons generated per year.

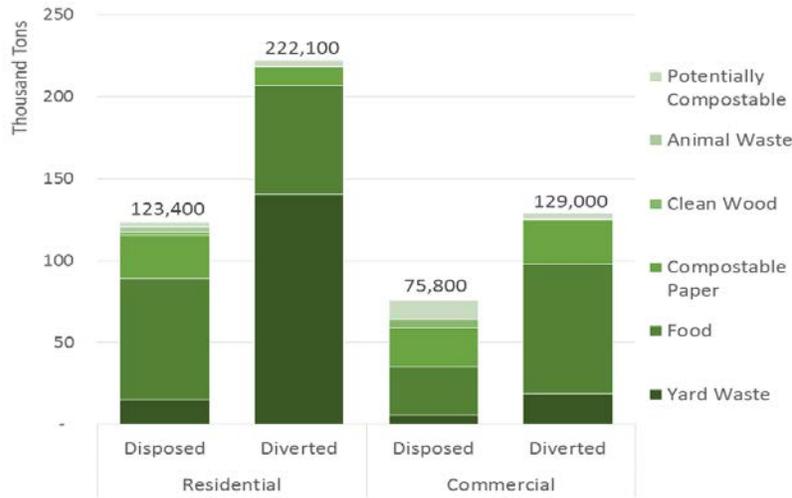
**Table 4. Commercial Organics Material Stream**

Material Type	Disposed		Diverted		Generated	
	%	Tons	%	Tons	%	Tons
<b>Organic Materials</b>	<b>93%</b>	<b>75,800</b>	<b>85%</b>	<b>129,100</b>	<b>88%</b>	<b>204,900</b>
Yard Waste	7%	5,500	15%	18,700	12%	24,200
Food	39%	29,900	62%	79,400	53%	109,300
Compostable Paper	31%	23,600	21%	26,800	25%	50,400
Clean Wood	7%	5,100	0%	400	3%	5,500
Animal Waste	0%	100	0%	-	0%	100
Potentially Compostable	15%	11,600	3%	3,700	7%	15,300

*Tons by material may not sum to total due to rounding.*

Both the commercial and residential sector data are shown in **Exhibit 1**. This reflects the difference between disposed and diverted material, for each business sector.

**Exhibit 1. Comparison of Commercial and Residential Disposed and Diverted Materials**



## 2.3 ORGANIC MATERIALS PROJECTIONS

### 2.3.1 Current and Projected Permitted Capacity

Existing and potential processors were interviewed in order to determine the current and future potential capacity for compost processing, as stated in Section 1. Due to expanded collections, all facilities anticipate increased quantities of compostables (mixed food and compostable paper from residential or commercial sources) and see the need to add processing capacity. Although the findings show unused permitted capacity, most interviewees reported that facilities are running close to through-put capacity and some are turning away material or transferring material out-of-county for processing. Processors were only able to predict capacity within the next five years.

**Table 5** presents estimates of current and future processing quantities and permitted capacities as obtained from permit records and interviews with organics material processing facilities. All processing types are currently operating below their permitted capacity, with the exception of food waste only, which is currently processing and permitted at 100 tons per year. Future organics material processing, refers to the next five years which is as far as the processors could predict. The estimated future available capacity was calculated by summing unused and additional permitted capacity, and then subtracting future estimated additional processing and estimated additional capacity needed for re-processing of material. Processors that are expanding organics operations were not certain of their permitted capacity, and therefore the numbers provided are an estimate that will more than likely change.

**Table 5. Current and Future Processing Quantities and Permitted Capacities**

Material Type	Current Organics Material Processing Operations(Tons/Yr)			Future Organics Material Processing Operations (Range of Tons/Yr)		
	Current Processing	Permitted Capacity	Unused Permitted Capacity	Est. Additional Processing	Est. Additional Permitted Capacity	Est. Future Available Capacity
ADC	16,800	NA	NA	-	-	NA
Recovery	1,018,100	1,142,100	124,000	99,000 - 154,000	456,000 - 639,000	481,000 - 609,000
Yard Waste only	280,000	292,000	12,000	31,000	0 - 183,000	0 - 164,000
Yard & MSW Compost	730,000	840,000	110,000	55,000 - 110,000	456,000	485,000 - 430,000
Food Waste Only	100	100	-	13,000	-	-
Animal Waste	8,000	10,000	2,000	-	-	2,000
<b>Total Tons per Year</b>	<b>1,034,900</b>	<b>1,142,100</b>	<b>124,000</b>	<b>99,000 - 154,000</b>	<b>456,000 - 639,000</b>	<b>481,000 - 609,000</b>

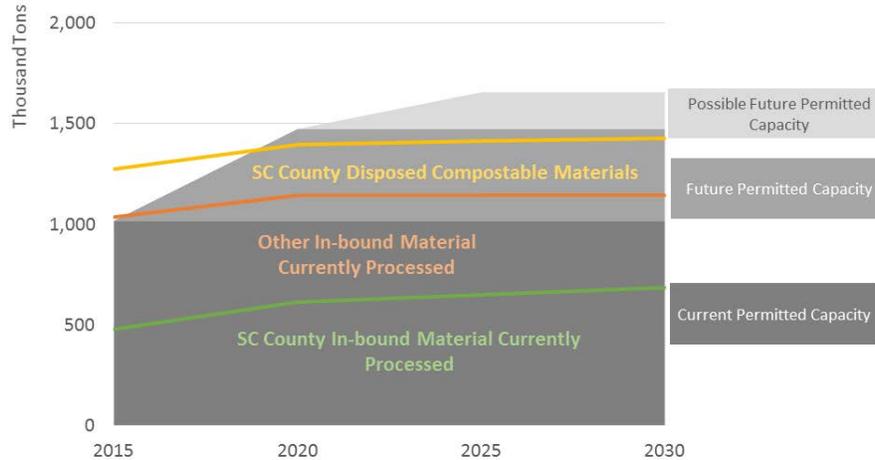
The overall estimate shows an additional 481,000 to 609,000 tons of future available capacity for organics processing.

The estimated future capacity and organics material generation and capture are shown in **Exhibit 2**. The difference between inbound material and processed compostable material generated by Santa Clara County is due to several factors.

1. Quantities of organic materials, specifically yard waste, are seasonal.
2. Incoming material to processors includes contamination, sometimes as high as 30%.
3. Some processors are accepting material from out-of-county and some are also sending material out of county.
4. Some material needs to be reprocessed, such as digestate from anaerobic digesters.
5. Limitations of the model and estimated processing quantities from processors.

As seen in **Exhibit 2** below, between the County in-bound material currently processed (477,224 tons per year including the five items mentioned above), the other in-bound material currently processed (557,676 tons per year), and the County disposed compostable materials (241,300 tons per year), there is a total of 1,276,203 tons each year of organic material taken to the In-County organics processing facilities. There is 1,018,100 tons of current permitted capacity for In-County organics processing, with 456,250 tons per year of estimated future permitted capacity, and another 182,500 tons per year of possible future permitted capacity (range as seen in **Table 5** above, 456,000 to 639,000 tons per year). There is not enough current capacity to manage the county's estimated organic material. No expansions have completed permitting and final capacity is subject to change.

## Exhibit 2. Projected Permitted Capacity and Generation



### 2.3.2 Current and Projected Tonnage by Generator

The quantities of organic materials accepted and processed by existing facilities was analyzed in order to recognize potential gaps in processing capacity in the future. Projections of future types and quantities of organic materials generated (both disposed and recovered) in Santa Clara County were developed through the following steps:

1. Modeled disposed and recovered organics material compositions
2. Modeled baseline (2015) organics material generation
3. Estimated organics material generation rates and developing future projections

In order to estimate organic materials generation rates and develop projections, the following methodology was used.

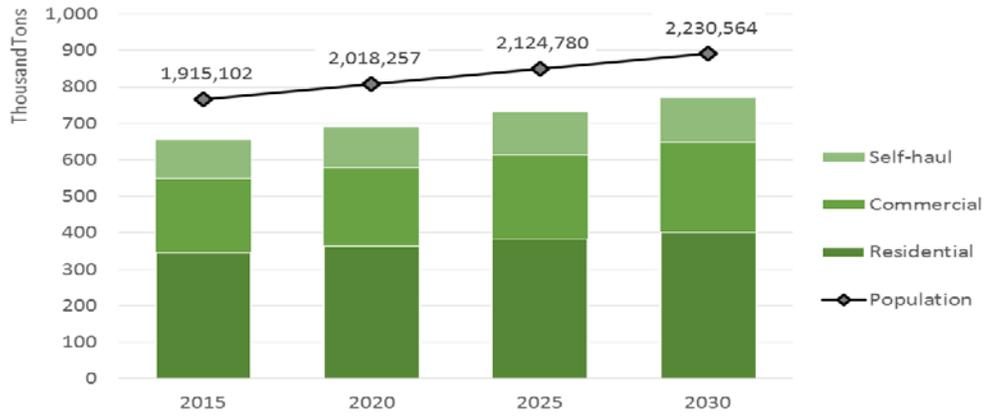
Using the total quantities of organic materials generated by sector (residential, commercial, and self-haul) estimated in the beginning of Section 2, generation rates were estimated from publicly available demographics data as follows:

- Residential organic materials generation rates as **tons per year per household**, based on housing unit data from the California Department of Finance.
- Commercial organic materials generation rates as **tons per year per employee**, based on total number of full-time employees from the California Employment Development Department.
- Self-haul generation rates as **tons per year per capita**, based on the total County population as reported by the Department of Finance.

The organic materials generation rates in terms of tons per year per household, per employee, and per capita were applied to projections of future housing unit counts, employment, and population in order to estimate organics material generation in Santa Clara County through 2030.

The population of Santa Clara County was 1.9 million in 2015, and it is estimated by 2030 there will be 2.23 million, or 9% growth over 15 years. The projected quantity of organic materials by generator are shown in **Exhibit 3**.

**Exhibit 3. Projected Annual Organic Tons by Generator**



### 3.0 PROCESSING FACILITY DEVELOPMENT AND/OR MODIFICATION

Developing a new organic materials processing facility, or modifying an existing one requires a number of state and local permits and approvals. This memorandum includes a description of these permits and approvals, as well as the results of research performed on potential facility modifications, including the facility name and location, current status of any modification plans, the planned new capacity for the facility, any new materials that may be accepted, and the date of the anticipated modification.

#### 3.1 PERMITTING REQUIREMENTS AND REGULATIONS

Development of a new organics material processing facility or the expansion of current facilities include a number of permits and approvals from State and local agencies. The permit process varies based on the location of the facility, types and quantities of materials to be handled, and the type of composting process. There are seven issues discussed below, some or all of which may apply to a specific facility, depending on the extent of the proposed project.

##### 3.0.1 Compostable Materials Handling Permit

Depending on the type and quantity of the material to be handled and the type of processing, a new organic materials facility may fall under the notification, registration, or full solid waste facility permit tier. The facility tiers are shown in **Table 6**.

In order to obtain a permit, a number of documents must be prepared, reviewed and subsequently approved by the regional regulatory body, typically the County Health Department, acting as the Local Enforcement Agency (LEA) for CalRecycle. The permit will be concurred upon by CalRecycle. The permit documents include the Permit Application and the Report of Composting Site Operation. The modification of an existing compost facility could cause a facility to fall under a different regulatory tier, based on the change of feedstock and/or change in capacity.

**Table 6. Compostable Material Handling Facility Tiers**

Enforcement Agency Notification	Registration Permit	Full Solid Waste Facility Permit
Agricultural Material Composting Operations (all) Section 17856		Composting Facilities (all) (e.g., biosolids, digestate, food material, mixed material) Section 17854
Green Material Composting Operations ( $\leq 12,500$ yd <sup>3</sup> ) Section 17857.1(a)	Vegetative Food Material Composting Facilities ( $\leq 12,500$ yd <sup>3</sup> ) Section 17857.2	Green Material Composting Facilities ( $> 12,500$ yd <sup>3</sup> ) Section 17857.1(c)
Biosolids Composting Operations at POTWs (all) Section 17859.1		Vegetative Food Material Composting Facilities ( $> 12,500$ yd <sup>3</sup> ) Section 17857.2
Research Composting Operations ( $\leq 5,000$ yd <sup>3</sup> )(Within-vessel $> 5,000$ yd <sup>3</sup> with EA determination) Section 17862		

Feedstock types are defined by CalRecycle as follows:

- **Agricultural Material** - Waste material of plant or animal resulting directly from agriculture.
- **Biosolids** - Residue from treated septage or wastewater.
- **Chipping and Grinding** – Green compost material mechanically reduced in size but not composted.
- **Compostable Material** – Organic Material
- **Food Material** – Waste material of plant or animal resulting from preparation or processing of food.
- **Green Material** – Plant material excluding food material and vegetative food material.
- **Vegetative Food Material** – A subcategory of food material of only plant origin.

### County Siting Element

For a new facility, a Finding of Conformance with the County Siting Element (CSE) must be approved by CalRecycle. The CSE requires that prior to the development of such facilities in a County, the facility proponent must: (1) show the project is consistent with the CSE; (2) undergo a vigorous site specific assessment and permitting process at the Federal, State, and local levels; and (3) address all environmental concerns as mandated by CEQA. The local task force would determine whether a particular project is consistent with the CSE and its Siting Criteria through a Finding of Conformance process.

### **Odor Impact Minimization Plan**

All compostable material handling operations and facilities must prepare, implement and maintain a site-specific odor impact minimization plan. A complete plan must be submitted to the LEA with the permit application. The odor impact minimization plan provides guidance to on-site operation personnel by describing, at a minimum, the following items.

- Odor monitoring protocol
- Meteorological Conditions
- Compliant Response Protocol
- Operating Procedures to Minimize Odors

If the operator will not be implementing any of these procedures, the plan must explain why it is not necessary.

### **California Environmental Quality Act**

A new or modified facility would also undergo review under the California Environmental Quality Act (CEQA). Evaluation of potential significant impacts associated with construction and operation of the facility would determine whether a Mitigated Negative Declaration or full Environmental Impact Report (EIR) would be required. Potential impacts could include Air Quality, Odors, Traffic, and Land Use, to name just a few. If development of an anaerobic digestion facility is proposed, the project could utilize the EIR prepared by the State for that purpose.

### **Land Use Permits**

Local land use approval for a new or modified facility would be required, including consistency with the General Plan and Zoning ordinance. Issues such as location in a County Community Standards District, proposed operation type, and type and quantity of materials to be handled are all factors that would be evaluated to determine the land use approval process for a proposed organic materials facility. The authority for determining the consistency with the General Plan lies with the government of the local jurisdiction in which the facility is located or to be located. As such, the siting and protection of the areas identified for future use as solid waste facilities are subject to the land use regulations of the local planning agency.

### **Air Quality**

Compliance with local air quality rules and regulations are required for organic materials processing facilities. Locally, the Bay Area Air Quality Management District (BAAQMD) requires either a Synthetic Minor Operating Permit for facilities that operate with annual emissions below all of the Title V trigger levels, or a Title V Permit for facilities that emit at least one major source threshold at or above the trigger levels for new composting operations, modifications to the existing composting operations, and modifications of related feed stock and compost processing equipment. Trigger levels are: (1) 100 tons per year of a criteria air pollutant (NO<sub>x</sub>, SO<sub>2</sub>, Pb, VOC, CO or PM<sub>10</sub>); (2) 10 tons per year of a Hazardous Air Pollutant (HAP); or (3) 25 tons per year of any combination of HAPs.

## Water Quality

New and existing composting operations are required to submit an Industrial Storm Water General Permit or obtain the appropriate National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit from the Regional Water Quality Control Board. The local Regional Water Quality Control Board is the San Francisco Regional Water Quality Control Board (north of Morgan Hill) or Central Coast Regional Water Quality Control Board (south of Morgan Hill). A Notice of Intent along with a filing fee and technical report must be completed and submitted with the application. A new facility must submit no less than 90 days prior to commencement of composting operations. The Regional Water Board will issue a Notice of Applicability that confirms the Discharger's Tier, timeline for compliance, monitoring requirements and monitoring methods.

### 3.2 PROPOSED AND PENDING FACILITY MODIFICATIONS

Based on research performed for this project, 11 facilities within Santa Clara County were surveyed to understand their current capacity and future plans. Of the 11 facilities researched, five are planning some type of modification, and three are adding new tonnage: Kirby Canyon Landfill, Z-Best and ZWEDC. SMaRT station and Waste Management Davis Street Transfer Station are adding organics processing, but not adding new organics capacity to their permits. The planned facility expansions range from 500 to 650 tons per day of organic material, including source separated food scraps, compostable material, mixed MSW, and green waste. According to the research, no new organic materials processing facilities are planned in Santa Clara County.

Only one out-of-County facility, Waste Management Davis Street, is adding new processing capabilities. Altamont Landfill is adding new composting capacity, however that facility is considered too far from Santa Clara County to be a viable location for processing organics from the County.

The planned facility modifications, along with their current status, new materials, capacity, and anticipated date of completion are included in **Table 7**.

**Table 7. Facility Modifications**

Facility Name	Current Status	Current Materials & Capacity	New Materials & Capacity	Anticipated Expansion Date
Kirby Canyon Landfill	Early planning stages	C & D, Industrial, special waste, solid waste, chipping and grinding. 2,600 tons per day (tpd)	Possibly 500 tons per day (tpd)	Not Available
Palo Alto Regional Water Quality Control Plant	Organics Facility Plan adopted in 2014 with 4 components. Component one: Biosolids Dewatering is under construction. Component two (wet anaerobic digestion) and Component three (food processing facility) on hold pending study.	Biosolids	Food Scraps. Capacity unknown	Unknown
Sunnyvale SMaRT Station	Installing Auger / Press System.	C&D, industrial, mixed Municipal Solid Waste (MSW), green waste 1,500 tons per day (tpd)	Source separated food scraps. No additional tonnage, adding system to process current program materials.	9/1/2017
Z-Best (Gilroy)	Have not yet resubmitted revised application. Preliminary CEQA activities in process.	Agriculture, food scraps, green materials, manure, MSW. 1,500 tons per day	Expand and convert a Compost Technology Inc. (CTI) system to an engineered Composting System (ECS), open aerated model.	Not Available
ZWEDC	Through-put permit in process.	Source Separated Food Scraps and Compostable material from Mixed Material MRF 500 tpd	Same materials, expanding 650 tpd	Not Available
Waste Management Davis Street	Installing Organics Material Recovery Facility (OMRF) and Organics Material Composting Facility (OMCF).	Mixed MSW, green waste, C&D, industrial. 9,600 tons per day	Sorting organics materials from residential and commercial MSW.  No new tonnage to facility.	Q1 2018 (OMRF and Phase 1 of OMCF).  Phase 2 of OMCF start date is not available

## 4.0 ADDITIONAL COMPOSTING CAPACITY

In order to thoroughly evaluate composting capacity available in Santa Clara County, supplementary research was performed to understand additional capacity other than organic processing facilities. In collaboration with the County, SCS developed a list of alternative composting programs to research and identify potential available capacity. This list includes locations that have on-site composting that manage in-house organic materials. The following programs were researched:

- Backyard composting
- Mid-sized compost operations at schools and institutions
- Parks, community gardens, and farms
- Golf courses
- Horse stables and boarding

SCS sent a survey to each city within Santa Clara County to receive a comprehensive list of alternative composting programs. Of the fifteen (15) cities in the County, only two (2) did not respond to the survey. These details can be found in **Attachment B**.

### 4.1 BACKYARD COMPOSTING

Backyard composting can provide an outlet for residential organic materials. All cities and the unincorporated county sell organics bins to residents at a discounted rate, and also provide free composting classes. The number of bins sold in each city since 2010 is included in **Table 8**.<sup>2</sup>

**Table 8. Number of Composting Bins Sold by City**

City	2010	2011	2012	2013	2014
Campbell	0	8	10	6	4
Cupertino	63	40	5	12	5
Gilroy	0	4	2	0	2
Los Altos	4	4	6	0	1
Los Altos Hills	1	2	1	1	0
Milpitas	5	13	6	17	6
Monte Sereno	0	0	0	4	0
Morgan Hill	3	7	2	9	7
Mountain View	8	17	21	41	12
Palo Alto	27	20	9	46	83
San Jose	59	122	158	187	26
Santa Clara	10	11	22	34	13
Saratoga	5	4	14	8	18
Sunnyvale	32	71	85	41	39
<b>Total</b>	<b>217</b>	<b>323</b>	<b>341</b>	<b>406</b>	<b>216</b>

\*2010 Data consisted of June-December. 2014 Data consisted of January-June.

<sup>2</sup> Data provided for compost sales was only for 2010 to 2014

As part of the survey, each city was asked how many households backyard compost. The City of Palo Alto had previously surveyed their residents, and was the only city that provided an estimate of the number of residents that backyard compost. According to Palo Alto's survey, 10% of their resident's backyard compost on a regular basis. Although the estimate may be high for other communities, it is the only local data available, and is used in the projections in **Table 9**. Table 9 includes an estimate of the number of households (as provided in the United States Census Bureau 2011 to 2015), then multiplied by 0.24 tons of organic materials composted per household annually, to estimate the tons of organic materials composted in back yards each year.

**Table 9. Backyard Composting by City**

City	Population	# Households (United States Census Bureau 2011-2015)	Estimated No. of Households that Backyard Compost (10% of total HH)	Tons per Household per year of Food Scraps**	Estimated Food Scraps Backyard Composted (tons / year)
Campbell	42,584	16,042	1,604	0.24	385
Cupertino	60,189	20,422	2,042	0.24	490
Gilroy	51,701	14,989	1,499	0.24	360
Los Altos	30,177	10,877	1,088	0.24	261
Los Altos Hills	7,922	3,047	305	0.24	73
Los Gatos	30,000	12,146	1,215	0.24	292
Milpitas	69,783	20,792	2,079	0.24	499
Morgan Hill	40,872	13,460	1,346	0.24	323
Mountain View	76,260	32,714	3,271	0.24	785
Monte Sereno	3,485	1,211	121	0.24	29
Palo Alto	75,000	26,087	2,609	0.24	626
San Jose	1,042,094	314,297	31,430	0.24	7,543
Santa Clara	120,245	43,433	4,343	0.24	1,042
Santa Clara County RWRD	87,764	26,052	2,605	0.24	625
Saratoga	30,000	10,800	1,080	0.24	259
Sunnyvale	148,372	55,094	5,509	0.24	1,322
<b>TOTAL in County</b>	<b>1,916,448</b>	<b>621,463</b>	<b>62,146</b>	<b>0.24</b>	<b>14,915</b>

An estimated 14,915 tons per year of food scraps are composted in backyards. The potential increase in number of bins sales is estimated to be 12 % per year, based on the average percent change between 2011 and 2013. **Table 10** reveals the projected number of households that will backyard compost, calculated by adding the yearly bin sales and the 14,915 baseline for 2016. Table 12 also demonstrates the annual pounds of food scraps that could potentially be removed from the waste stream by backyard composting.

**Table 10. Projected Backyard Composting 2016 to 2020 (tons per year)**

Year	Number of Households that Backyard Compost	Projected Composter Sales	Annual Average Tons per Household of Food Scraps	Estimated Overall Tons of Food Scraps that will be Backyard Composted Annually	Additional Tons of Food Scraps that will be Backyard Composted
2016	62,146	570	0.24	14,915	
2017	62,765	639	0.24	15,068	153
2018	63,390	716	0.24	15,240	172
2019	64,021	801	0.24	15,432	192
2020	64,658	898	0.24	15,648	216

## 4.2 MID-SIZED COMPOST OPERATIONS AT SCHOOLS AND INSTITUTIONS

The 15 jurisdictions within Santa Clara County were surveyed regarding mid-sized compost operations at schools and institutions. Two of the cities did not respond to the survey, four cities were uncertain of whether any of the schools in their area had onsite composting, and one city was able to provide the number of schools that had onsite composting. Seven cities were aware of the number of schools that had their hauler collect organic materials and compost. None of the jurisdictions could report the volume of material that was composted onsite. Based on the results of the survey, onsite compost programs at schools does not appear to contribute a great deal to the diversion of organic materials. **Table 11** provides the overall results.

**Table 11. Onsite Composting at Schools**

Cities	Number of Schools in Jurisdiction	Number of Schools with onsite Composting	Number of Schools that have Organics Collected by Hauler	Volume of Material
Campbell	36	0	3	(2) 95 gal/wk, 190 gal/wk, 4yd/wk
Cupertino	27	Unknown	Unknown	Unknown
Gilroy	Unknown	Unknown	Unknown	Unknown
Los Altos	Unknown	Unknown	Unknown	Unknown
Los Gatos	29	0	5	3 (95 gal/wk) 2 (1.5-2yd/week)
Milpitas	14	0	Not Listed	Unknown
Monte Sereno	1	0	1	3yds and 95 gal/week
Morgan Hill	15	0	0	Unknown
Mountain View	11	Unknown	2	Unknown
Palo Alto	35 (17 private)	0	18	Unknown
San Jose	92	City was uncertain (37 gardens)	9	Unknown
Santa Clara	1	Unknown	Unknown	Unknown
Santa Clara County RWR	3	2	Unknown	Unknown
Saratoga	25	0	0	Unknown
Sunnyvale	31	0	9	Unknown

Eleven jurisdictions in the County have some type of small or large institution. SCS contacted all of the larger institutions, however only a few responses were received. It does not appear that any of the institutions have onsite composting, the smaller institutions use landscapers, and the larger facilities either mulch, chip, or have their organic materials collected by a hauling company. **Table 12** shows the results from the survey and phone calls made to large institutions.

**Table 12. Onsite Composting at Large Institutions**

Cities	No. of Institutions in Jurisdiction	Name of Institution	On-Site Composting?	No on-site, what else are they doing with compost?	Total Volume of Material Composted On-site
Campbell	0	N/A	N/A	N/A	N/A
Cupertino	3	DeAnza Community College	No	Recology Services	~8 tons/month
Gilroy	1	Gavilan College	Unknown	Unknown	Unknown
Los Altos	1	Foothill College	Unknown	Unknown	Unknown
Los Gatos	0	N/A	N/A	N/A	N/A
Milpitas	1	California Science and Technology University	No	Landscaper	Not sure
Monte Sereno	0	N/A	N/A	N/A	N/A
Morgan Hill	1	Gavilan College	Unknown	Unknown	Unknown
Mountain View	0	N/A	N/A	N/A	N/A
Palo Alto	4	Stanford	No	Peninsula Sanitary Services Inc. Hauls Material to Newby	Not sure
Palo Alto		Palo Alto University	No	Landscaper	Not sure
San Jose	14	San Jose City College	Unknown	Unknown	Unknown
San Jose		San Jose State	No	Hauling Company	Unknown
San Jose		San Jose - Evergreen Community College	Unknown	Unknown	Unknown
Santa Clara	6	Santa Clara University	No	Mission Trail Waste Systems	Unknown
Santa Clara		Mission College	No	Mission Trail Waste Systems	Unknown
Santa Clara County	0	N/A	N/A	N/A	N/A
Saratoga	1	West Valley Junior College	Unknown	West Valley Collection & Recycling	Not sure
Sunnyvale	2	Art Institute of California Sunnyvale (closing), Foothill De Anza Community College, Herguan university, TBD	No	New site, no material; within 6 months they will be utilizing City landscape bins	Not sure

### 4.3 PARKS, COMMUNITY GARDENS, AND FARMS

SCS surveyed County of Santa Clara municipalities to identify the number of parks, community gardens, and farms within each city, and if there are composting operations. The survey was used to identify current capacity and what is anticipated regarding future growth of the program. Due to limited responses, understanding the amount of materials composted on site at parks, community gardens, and farms is limited. A total of 253 parks are located within Santa Clara County. **Table 13** shows that Mountain View, Palo Alto and Sunnyvale all report composting operations in place. Milpitas, Mountain View, Santa Clara and Santa Clara County parks have

their materials sent to their hauler for composting. Cupertino, Morgan Hill, Mountain View and Sunnyvale responded that they grasscycle on site at some of their parks.

There are 10 community gardens throughout Cupertino, Milpitas, Morgan Hill, Mountain View, Palo Alto, and Sunnyvale, with a new garden in Santa Clara County starting in 2018. The amount of composted materials the different gardens was not reported by the cities.

There are 106 farms reported throughout Santa Clara County. The amount of composted material at farms was unknown. SCS did contact farms to see what they did with their material, and were unsuccessful getting a response.

#### 4.4 GOLF COURSES

The survey performed with the County of Santa Clara municipalities as well as web-based research identified 24 golf courses within Santa Clara County. It is known that Blackberry Farm in Cupertino grasscycles its grass clippings. All other golf courses were unable to provide information on type and quantity of materials composted onsite. Additional follow up calls were made to golf courses to better understand the current program and its capacity, the future direction of the program, and anticipated projected growth. Unfortunately, of the 13 golf courses we contacted, none of them returned our calls. **Table 14** shows the results of the survey and phone calls.

#### 4.5 HORSE STABLES AND BOARDING

The survey answered by the municipalities within the County of Santa Clara identified 27 horse stables and equestrian centers within the County. Of the 15 municipalities surveyed, four (4) do not have stables and seven (7) did not know what was done with the manure. Los Gatos, Milpitas, San Jose and Sunnyvale provided some information on what their stables are doing. Additional follow up calls were made in an attempt to get more information on what they are doing with their manure, however we only received one response. **Table 15**, shows the details of horse stables in Santa Clara County and their composting activities.

**Table 13. Composting Operations at Parks, Community Gardens and Farms**

Cities	No. of Parks	No. of Composting Operations	Amt. of Material Composted	Amt. Sent to Hauler	Amt. Grasscycled	No. of Gardens	No. of Composting Operations	Amt. of Material Composted	No. of Farms	Amt. of material Composted	Amt. sent to Hauler	Amt. Grasscycled
Campbell	9	Unknown	Unknown	Unknown	Unknown	0	N/A	N/A	1	Unknown	Unknown	Unknown
Cupertino	19	Not Listed	Not Listed	Not Listed	Grasscycling done at all turf areas except 4 infields where clippings are hauled to Service Center to be collected for composting	1	compost piles on site and bin service by hauler	Not Listed	0	N/A	N/A	N/A
Gilroy	2	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	10	Unknown	Unknown	Unknown
Los Altos		Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Los Gatos	7	Unknown	Unknown	Unknown	Unknown	0	N/A	N/A	28	Unknown	Unknown	Unknown
Milpitas	33	0	Not listed	hauled off by to composting facility (96gal cart of yard trim/organi cs from Spring Valley ea. Week	Unknown	1	N/A	Not Listed	0	N/A	N/A	N/A
Monte Sereno	0	N/A	N/A	N/A	N/A	0	N/A	N/A	0	N/A	N/A	N/A
Morgan Hill	26	Not listed	Not listed	Unknown	mowing and tree trimming is performed by contractors; amt. unknown	1	mhcommunitygarden.org home page does not include email or contact phone	Unknown	10	N/A	N/A	N/A
Mountain View	29	2	not listed	Unknown-debris box sent to Smart Station	115 acres	2	Unknown	N/A	0	N/A	N/A	N/A
Palo Alto	36	2	Unknown	32 gallons	Unknown	4	4	Unknown	0	N/A	N/A	N/A
San Jose	17	Unknown	Unknown	Unknown	Unknown	0	N/A	N/A	31	Unknown	Unknown	Unknown
Santa Clara	33	Unknown	Unknown	hauled back to yards and collected by MTWS for processing	Unknown	0 (1 in 2018)	Unknown	Unknown	0	N/A	N/A	N/A
Santa Clara County RWRD	7	Unknown	Unknown	92 cy weekly (trash)	Unknown	0	N/A	N/A	24	Unknown	56 cy weekly (trash)	Unknown
Saratoga	12	Unknown	Unknown	Unknown	Unknown	0	N/A	N/A	2	Unknown	Unknown	Unknown
Sunnyvale	23	2	Unknown	Unknown	400 acres	1	Unknown	Unknown	2	yes, amt. unknown	Unknown	Unknown

**Table 14. Composting Operations at Golf Courses**

Cities	No. of Golf Courses	Composting Onsite	Mulch Onsite	Does Hauler pick up material?	Estimated Volume of Compost Material
<b>Campbell</b>	0	N/A	N/A	N/A	N/A
<b>Cupertino</b>	2	Blackberry grasscycles		Landscape trimmings/tree waste pickup/collected for composting	Not Listed
<b>Gilroy</b>	3	Unknown	Unknown	Unknown	Unknown
<b>Los Altos</b>	1	Unknown	Unknown	Unknown	Unknown
<b>Los Gatos</b>	1	Unknown	Unknown	Unknown	Unknown
<b>Milpitas</b>	2	Unknown	Unknown	Spring Valley Recology collects 96 gal. cart of yard trimmings	Unknown
<b>Monte Sereno</b>	0	N/A	N/A	N/A	N/A
<b>Morgan Hill</b>	2	Unknown	Unknown	Unknown	Unknown
<b>Mountain View</b>	1	none	none	Tree trimmings collected and sent to Smart station	Unknown
<b>Palo Alto</b>	1 (and 1 currently under construction)	Unknown	Unknown	Unknown	Unknown
<b>San Jose</b>	2	Unknown	Unknown	Unknown	Unknown
<b>Santa Clara</b>	2	Unknown	Unknown	Unknown	Unknown
<b>Santa Clara County RWRD</b>	4	Unknown	Unknown	Recology - no data reported	Unknown
<b>Saratoga</b>	1	Unknown	Unknown	Unknown	Unknown
<b>Sunnyvale</b>	2	Yes	None	Yes	Grasscycle unknown

**Table 15. Composting Operations at Horse Stables**

<b>Cities</b>	<b>No. of Horse Stables and Eq. Centers</b>	<b>Mulch/Compost/ or Haul</b>	<b>Volume of Manure</b>
<b>Campbell</b>	0	N/A	N/A
<b>Cupertino</b>	2	Unknown	Unknown
<b>Gilroy</b>	3	Unknown	Unknown
<b>Los Altos</b>	3	Unknown	Unknown
<b>Los Gatos</b>	4	(Bear Creek Stables hauls off)	Bear Creek Stables ~66 cy/wk
<b>Milpitas</b>	3	Chaparral compost onsite; Indian Hills haul to offsite location	11 cy/wk spread on-site (Chaparral Ranch)40cy/per wk (Indian Hills Ranch)
<b>Monte Sereno</b>	0	N/A	N/A
<b>Morgan Hill</b>	1	Unknown	Unknown
<b>Mountain View</b>	0	N/A	N/A
<b>Palo Alto</b>	2	Unknown	Unknown
<b>San Jose</b>	4	(Lakeview Stable) partially compost and spread onsite	Unknown
<b>Santa Clara</b>	0	N/A	N/A
<b>Santa Clara County RWRD</b>	2	Unknown	Unknown
<b>Saratoga</b>	2	Unknown	Unknown
<b>Sunnyvale</b>	1 (Animal Assisted Happiness)	Haul to offsite location	Unknown

## 5.0 ONSITE PROCESSING TECHNOLOGIES

There are many technology options for managing organic materials in the waste stream, each striving to optimize the use of the biological conditions of the material to achieve the most uniform, mature product in a reasonable amount of time. When evaluating alternative processing methods or technologies, criteria include available space, labor requirements, feedstock, products, utilities, etc. SCS identified three primary organic materials processing technologies to provide onsite support of managing organics materials. These different technologies include mini-aerobic systems, bio-digesters, and dehydrators. Businesses and institutions would benefit from these small scale systems to help manage their food scraps, compostable paper and green waste onsite. These technologies can potentially save money and the business can use the by-products as compost or soil additives for their landscaping or gardens.

SCS identified seven small scale organics material processing technologies that have the potential for onsite applications. These are described in the following section. SCS selected technologies that have a proven track record of operation in the U.S, including two vendors (Totally Green and Global Composting Solutions) with operating systems in California.

### 5.1 SMALL SCALE PROCESSING TECHNOLOGIES

#### 5.1.1 Mini-Aerobic Systems

A mini-aerobic system is an in-vessel technology that provides a controlled environment similar to static piles or windrows, but fully enclosed. The system mixes and aerates material to accelerate the composting process, and generates a compost material that can be applied to landscaped areas. Two companies that provide this type of system are described below: DT Environmental and Global Composting Solutions. SCS does not endorse either company or equipment, and there are other companies that provide similar equipment.

##### **DT Environmental**

DT Environmental, operating since 2009, developed a mini-aerobic system called the DTE Enviro Drum, which can be used at large campus settings such as universities, hotels, theme parks, correctional facilities, and business centers. The waste capacity for the DTE Enviro Drum can range from 8 to 60 cubic yards, depending on the selected drum size. Space requirements are approximately 8'x 54', including the mixer and other equipment components. The in-vessel composting method artificially accelerates the temperature to kill any pathogens and is maintained at 55° Celsius or higher for three consecutive days. The system requires one hour per day per load of labor time, and can manage up to two loads per day. The volume of weight



**DTE Enviro Drum**

reduction typically ranges from 20-80 percent, depending on feedstock characteristics. The finished compost is stacked in piles for approximately 30 days to cure. Storage requirements for the compost curing process will be dependent on the selected system and daily utilization. The DTE Enviro Drum accepts manure, food waste, bio-solids, green waste, paper and bioplastics. Benefits include versatility for customized designed needs, elimination of transport costs and tipping fees, and generation of usable soil amendment.

The DTE Enviro Drum model sizes and pricing range from:

- Model 6-20: 41'.4" Length x 12'.4" Width x 8'.6" Height  
Cost of system, \$140,000-\$200,000 including installation
- Model 6-32: 53'.5" Length x 12'.4" Width x 9'.2" Height  
Cost of system, \$200,000-\$250,000 including installation
- Model 8-40: 53'.5" Length x 12'.4" Width x 9'.2" Height  
Cost of system, \$275,000-\$350,000 including installation

DT Environmental equipment can be customized to meet regulatory requirements, however, all permitting is managed at a local level. DT Environmental was unable to provide estimates for return on investment as this will be based on a facility's revenue source ie: avoided landfill costs, tipping costs, or compost sales.

### Global Composting Solutions



**Hot Rot Composting System**

Global Composting Solutions developed a mini-aerobic system (HotRot) designed to process organic materials from restaurants, commercial premises, and larger facilities such as a campus setting. The HotRot aerobic system has been in operation since 2000 with units operating in California and Canada. The HotRot requires 2 hours of labor per day, and has a throughput capacity ranging from 800 to 1,102 pounds per day, depending on the selected model. These systems run continuously with a 10 to 12 day cycle, starting with the

initial input of organic material, to the end of the process when the composted material is discharged. These units do not produce leachate and instead expel excess water as vapor through an exhaust air duct. HotRot benefits include a guarantee of no objectionable odors, weatherproof units, and acceptance of most types of organics materials including small bones and compostable paper. This system can allow for some other compostable products (i.e. silverware, bags), however it is recommended to shred for full degradation.

The HotRot systems are modular, fully enclosed, and range in size and cost as indicated:

- HotRot 1206: 7.15m Length x 1.40m Width x 2.70m Height (with exhaust duct removed 1.60m Height). Cost of system, \$100,000 including installation. This does not include any civil work, connection services, or permitting.

HotRot 1811: 12.780 Length x 2.3m Width x 2.24m Height plus ancillaries. Cost of System, \$300,000 - \$350,000, this includes the feed system, discharge screw, biofilter, electrical, freight, install, commissioning and training. This does not include any civil work, connection services, or permitting.

### 5.1.2 Bio-Digesters

A bio-digester uses the addition of proprietary biological agents and water to accelerate decomposition. The system is designed to break down the organic material enough to deposit through the sewer system, which distinguishes them from garbage disposals. Two companies that provide this type of system are: Totally Green, Inc.; and BioHighTech Global. SCS does not endorse either company or equipment, and there are other companies that provide similar equipment.

#### Totally Green, Inc.

Totally Green, Inc. provides a variety of different sizes of the ORCA system, which is designed for businesses that produce high volumes of food scraps, including supermarkets, hotels, large office buildings, convention centers, stadiums, and shopping malls. Totally Green has been in operation since 2012, and has over 200 units operating in the United States, including California. The ORCA's proprietary natural microorganism solution works with water and recycled plastic bio chips to break down and digest organic waste. When filled to capacity, the ORCA models can process between 25 to 100 pounds per hour of food scraps. These systems are designed to run continuously over a 24 hour period, turning food scraps into wastewater that drains directly to the municipal sewage system with no other byproducts generated. The ORCA will only accept food waste. Contaminants including bones and avocado seeds will cause operational issues, and presorting is required.



ORCA

The ORCAs stainless steel container model sizes and pricing range from:

- OG25: 50" Length x 33.5" Width x 49" Height  
\$28,000, plus \$200 monthly services
- OG50: 68.5" Length x 33.5 Width x 49" Height  
\$34,000, plus \$375 monthly services
- OG100: 115" Length x 33.5" Width x 49" Height  
\$39,000, plus \$425 monthly services

The ORCA monthly service fees cover the required ORCA Bio Chips & ORCA Microorganisms from Totally Green. After the initial cost of the system the typical return on investment is about 3 years or less. There is no additional permitting required to operate this system.

These models require minimal labor, with recommended feeding every two to three hours for maximum efficiency. These systems have the potential to divert up to 270 cubic yards of food scraps per year from landfills.

### **Bio High Tech Global**

Bio High Tech Global has developed three Eco-Safe digesters which are designed for small scale (e.g. quick service restaurants) to large scale (e.g. food distribution centers) food scrap management. They have systems in 15 countries and 38 states, including California. These digesters are continual feed units that can process between 29 to 89 cubic yards of food scraps within a 24 hour period. These digesters only accept food waste, excluding large bones, mussel and clam shells and pineapple tops. The digesters will not accept packaging, general waste or cutlery. The Eco-Safe digester ranges in size from:



**Eco-Safe Digester**

- Eco-Safe 4: 45.75” Length x 35.25” Width x 50” Height
- Eco-Safe 8: 59.25” Length x 44.25” Width x 55.25 Height
- Eco-Safe 12: 69.25” Length x 44.25” Width x 55.25” Height

These digesters require minimal maintenance and can be continually fed as needed. These units convert food scraps into wastewater which is then drained to the municipal sewage system with no other byproducts generated. Bio High Tech Global was unresponsive to SCS’s inquires regarding information on pricing, permitting and return on investment.

### **5.1.3 Dehydrators**

Dehydrators use a mechanical/thermal approach that effectively separates liquids from the solids. These systems can include pulping within the dehydrator, or can be coupled with stand-alone pulping and dewatering systems. The liquid portion is disposed of through the sewer system and the reduced solid portion is landfilled or diverted for recycling. Three companies that provide this type of system are: OnSite Waste Solutions; Somat; and Ecovim. SCS does not endorse any of these companies or equipment, and there are other companies that provide similar equipment.

#### **OnSite Waste Solutions**

OnSite Waste Solutions, operating since 2012, provides a Dehydration and Recovery Technology system (DaRT), which is ideal for hotels, restaurants, resorts, and colleges throughout the U.S. These units have a built-in shredder that can process food waste ranging from 110 to 165 pounds a day depending on the selected model.

The dehydrators can run up to two cycles per day, with 9 to 10 hours, per cycle. DaRt systems required minimal labor, requiring about 15 minutes for each cycle to load, collect discharge, and clean equipment filters.

The benefits of using DaRT include 90% waste reduction with 10% of highly concentrated organic material remaining. The highly concentrated organic material should be blended 10 to 1 with other composting materials before use, due to high concentrations of nitrates, or can be sent to a local composting site. The DaRT system can accept bones and about 10-15% contamination, including small packaging containers, and compostable tableware and paper napkins. These systems heat up to 300 ° Fahrenheit, killing all pathogens, and generate approximately 20 gallons of filtered water per day. This filtered water can be collected and reused in the system by adding a small water pump and reservoir to the system. The DaRT dehydrator ranges in size and price from:

- DaRT GC-100: 57” Length x 36” Width x 51” Height  
Cost of system, \$32,000  
Leasing, \$600 per/month
- DaRT GC-100: 63” Length x 40” Width x 59” Height  
Cost of system, \$45,000  
Leasing, \$900 per/month



**DaRT GC-100**

The DaRT GC systems have a potential return on investment between 2 to 3 years or 4 to 5 years, depending on the facility’s current waste collection practices.

### **Somat**

Somat has been in business since the late 1940s, and currently has 100 systems operating in the U.S., 15 of which are in California. Somat provides the DH-100w Waste Dehydrator system that can process waste for medium size foodservice operations up to very large institutions or facilities. The input capacity of the system ranges from 110 to 220 pounds per 12 to 18 hour cycle. This system requires minimal maintenance, including the labor to load each cycle and collection of the finished soil amendment material. The system accepts food scraps, cardboard and compostable disposables (e.g. paper plates), and requires an electrical connection and condensate drain. There is no venting or fresh water required to operate. The DH-100w system processes the compostable material in the decomposing chamber to kill any bacteria and reduce the waste matter by up to 92% of the original input.



**DH-100w Waste Dehydrator**

A Somat pulper is recommended prior to processing and can reduce the waste volume by an additional 80% and increases the waste capacity of the DH-100. The by-product produced is a dry, light and odor free sterile material that can be used as a soil additive or as an accelerant in a composting facility.

The Somat DH-100 system is 45 feet in Length, 37.5 feet in Width and 44.5 feet in Height. The cost of this system is \$38,000. The return on investment will depend upon a facility’s disposal costs.

## Ecovim

Ecovim systems were launched in 2008 and machines are currently operating throughout the U.S. Ecovim has developed a food dehydrating and composting machine that can process food waste for small generators (grocers and fast food restaurants) to large generators (casinos and resorts). These systems can process between 650 to 1,100 pounds of food waste per day depending on the selected model. The treatment cycle times range from 21 to 23 hours with an 80 to 90% reduction in material volume. The Ecovim unit can treat food waste including 15 percent paper and untreated cardboard. This system is simple to operate, and does not require venting or plumbing, and can convert 250 pounds of waste into 25 gallons of potable water and 25 pounds of 100% sterile bio-mass that can be used as a soil amendment or compost accelerant without any further off-site composting. The Ecovim unit sizes and cost range from:



**Ecovim unit**

- Eco 650w: 63.0” Length x 57.5” Width x 60.2” Height  
Cost of system, \$72,000
- Eco 1100: 86.6” Length x 57.1” Width x 68.9” Height  
Cost of system, \$85,000

The Ecovim systems have 3 to 5 year return on investment. This system has no permitting requirements.

## 5.2 ONSITE PROCESSING OPPORTUNITIES

SCS developed a list of potential locations within Santa Clara County that could implement and benefit from onsite organics material management, and would further assist the County of Santa Clara to divert organic materials. The list of facilities was developed by reviewing the survey responses from cities within Santa Clara County, as well as research performed to identify local hospitals, jails, universities, institutions, and large campus's. **Table 16** includes the businesses identified as having a high potential for generating large volumes of organic materials, and the potential ability to manage organics onsite.

**Table 16. Potential On-site Composting Opportunities**

<b>Facility Name</b>	<b>Location</b>
<b>Colleges</b>	
Carrington College	San Jose
De Anza Community College	Cupertino
Evergreen Valley College	San Jose
Foothill Jr. College	Los Altos
Gavilan Jr. College	Gilroy
Mission Jr. College	Santa Clara
San Jose City College	San Jose
San Jose State University	San Jose
Santa Clara University	Santa Clara
Stanford University	Palo Alto/Stanford
West Valley Jr. College	Saratoga
<b>High-Tech</b>	
Adobe Systems, Inc.	San Jose
Apple, Inc.	Cupertino
Central & Wolfe	Sunnyvale
Cisco	San Jose
Google	Mountain View
HP Hewlett Packard	Palo Alto
Intel Corporation	Santa Clara
Netflix	Los Gatos
Nvidia Headquarters	Santa Clara
Samsung Headquarters	San Jose
Symantec	Mountain View

Facility Name	Location
<b>Hotels</b>	
Courtyard by Marriott San Jose	Campbell
Courtyard by Marriott South San Jose / Morgan Hill	Morgan Hill
Embassy Suites by Hilton Milpitas Silicon Valley	Milpitas
Embassy Suites by Hilton Santa Clara Silicon Valley	Santa Clara
Fairmont Hotel	San Jose
Four Season Hotel Silicon Valley at East Palo Alto	Palo Alto
Hilton Garden Inn	Cupertino
Hilton Garden Inn	Mountain View
Hyatt Regency	Santa Clara
Juniper Hotel Cupertino, Curio Collection by Hilton	Cupertino
San Jose Marriott	San Jose
Santa Clara Marriott	Santa Clara
Spring Hill Suites by Marriott	San Jose
<b>Event Centers/Stadiums</b>	
Avaya Stadium	San Jose
CEFCU Stadium	San Jose
Great America Pavilion	Santa Clara
Levi's Stadium	Santa Clara
San Jose McEnergy Convention Center	San Jose
Santa Clara Convention Center	Santa Clara
SAP Center	San Jose

<b>Facility Name</b>	<b>Location</b>
Shoreline Amphitheatre	Mountain View
Stanford Stadium	Palo Alto/Stanford
Stevens Stadium	Santa Clara
<b>Exploration Center and Amusement Park</b>	
California's Great America	Santa Clara
NASA Ames Exploration Center	Mountain View
<b>Hospitals</b>	
El Camino Hospital	Mountain View
Good Samaritan Hospital	San Jose
Kaiser Permanente San Jose Medical Center and Medical Offices	San Jose
Kaiser Permanente Santa Clara Medical Center and Medical Offices	Santa Clara
O'Connor Hospital	San Jose
Regional Medical Center	San Jose
Santa Clara Valley Medical Center	Santa Clara
Stanford Children's Health, Lucile Packard Children's Hospital	Stanford
Stanford Health Care-Stanford Hospital	Stanford
<b>Correctional Facility</b>	
Elmwood Correctional Facility	Milpitas
Santa Clara County Jail	Santa Clara
Santa Clara Juvenile Detention Center	San Jose

## 6.0 BACKHAULING OF ORGANIC MATERIAL

Large organics material generators, such as grocery stores, often backhaul their organics material to their distribution centers for consolidation and processing. Understanding the volume of material that is taken outside Santa Clara County is important for planning purposes.

In order to identify the volume of material that is backhauled from large generators, our Team utilized the estimates identified in Section 2. The data and modeling tool provided backhaul generation numbers from the commercial sector in Santa Clara County. As part of the CalRecycle business sector waste characterization performed in 2014, field staff visited different business sectors throughout California, including large generators that backhaul material. As part of the CalRecycle study, field staff identified volumes of material that were being backhauled from these locations, and incorporated those numbers into the CalRecycle characterization database. SCS anticipated to use these numbers, however CalRecycle was not certain these numbers were an accurate representation of the backhauling occurring within the commercial sector. Furthermore, the numbers were not highlighted as a unique number, and the backhauling data was combined with other data and added together in one category.

The survey did not provide any information on how much backhauling was occurring, and many of the hauling companies contacted were uncertain as well. Given the limited information available, our team was not able to rely on the CalRecycle backhaul number. Furthermore, the fact that any material that was backhauled to a distribution center could not be calculated in the current waste stream (i.e. not in the generation numbers identified in Section 2 above), therefore this number does not appear to be an important factor in understanding organic materials processing in the County.

## 7.0 FOOD WASTE REDUCTION PROGRAMS

A variety of food waste reduction programs exist to support businesses and residents of Santa Clara County. Food banks, non-profits and innovative companies are leading the way and making it easier for individuals and businesses to reduce the amount of food waste destined for the landfill. SCS Engineers (SCS) researched local programs that offer educational efforts and tools to reduce or prevent food waste. Food banks have the capacity and labor to accept surplus food from stores and businesses and redistribute to the local community. Organizations such as Peninsula Food Runners in Santa Clara County also exist to help non-profit organizations providing food or meal assistance to connect with businesses, farmers markets and other groups who have surplus food. Innovative companies, such as matching programs and/or software solutions include a compilation of local for profit and non-profit companies, such as Replate and Copia, Chow Match, Wastenofood.org, Food Runners, Food Recovery Network, Rock and Wrap It Up, and the Food Donation Connection, to name a few. These methods address food donation opportunities by incorporating some form of communication technology to connect surplus food to agencies assisting people in need. Together, these groups and businesses are developing a long-term solution to recover food that is destined for the landfill, which can be reduced or provided to hungry people.

### 7.1 FOOD WASTE REDUCTION PROGRAMS IN SANTA CLARA COUNTY

Reducing the quantity of wasted food is a critical element of the solid waste hierarchy and the goal of increased diversion. If we can reduce the production of excess food, then we can lower the amount of material being landfilled and composted. In order to identify what food waste reduction programs are currently managed within Santa Clara County, and what should be added in the future, SCS identified the following activities taking place within the County:

- The cities of Mountain View, Palo Alto, San Jose and Sunnyvale have adopted zero waste policies with the goal of no waste going to the landfill by 2020-2025. For example, Mountain View's Zero Waste Vision is to recover materials for their highest and best use by 2025. This means additional efforts will be taken to recover food waste before sending it to a compost facility.
- Gleaning organizations are community led groups who harvest and donate fruits from trees, often from neighborhood backyards and local orchards. Gleaning helps reduce food waste by gathering excess or not harvested produce that would otherwise go to waste. These groups have developed a network of people who grow fruits and vegetables, and donate surplus quantities to local food banks/non-profit 501c3 organizations. Village Harvest and Garden to Table are two gleaning groups that help growers connect with food banks and the community to help improve healthy food access and reduce food waste.
- Food rescue organizations working in Santa Clara County help reduce food waste by recovering uneaten food from events or cafeterias and delivering them to soup kitchens and food banks. Most of these organizations rely heavily on volunteers for deliveries and

preparations. Peninsula Food Runners, Santa Clara University: Food Recovery Network, Stanford Project on Hunger (SPOON), Replate, and Rock and Wrap it Up are all food rescue organizations at work in Santa Clara County.

- Food rescue organizations are helping people and/or businesses locate where surplus food can be donated by using the web or mobile apps. WasteNoFood.org is a website where farms, restaurants, cafeterias and hotels can post excess food for “aid” groups to confirm what food they want prior to pick up. RecycleStuff and RecycleWhere are web based marketplaces or informational centers where users can find locations to donate food.
- Food banks such as the Second Harvest Food Bank of Santa Clara is a community-based organization that provides the food source umbrella to partner non-profit agencies assisting people. Donors can donate backyard produce, groceries, or large scale food donations. Second Harvest Food Bank has an easy to use website where people can sign up to become a donor or volunteer.
- Joint Venture Silicon Valley (<https://jointventure.org/initiatives/surplus-harvest>) is an organization that brings together businesses, government and the community to highlight issues and help resolve them through innovation. Santa Clara County and Joint Venture have been collaborating on a three-year long project to help reduce hunger and food waste in Silicon Valley by developing a regional framework that matches surplus food to authorized agencies.

In spring of 2015 the County of Santa Clara conducted a month long food waste study with Food Shift. Concurrently, the Surplus Harvest Initiative began in June 2015 as Joint Venture first partnered with Urban Harvester. Their 16-month endeavor addressed the challenges and gaps in three counties, including Santa Clara County, identifying agencies capabilities and readiness, as well as a detailed intake, technology development, food donor sources, and policy needs. Urban Harvester presented their findings and recommendations for a regional plan to Joint Venture.

In spring of 2016, Santa Clara County awarded a grant to Talent Partnerships and Joint Venture to begin a three-year tiered plan of action. To date, Joint Venture has extensively researched the landscape to understand the key stakeholders, the current food rescue activity, the barriers to rescuing more food, and the resources available. They have researched other food rescue programs throughout Santa Clara County to learn best practices and potential pitfalls. An implementation plan has been developed to bring together the disparate food rescue efforts under one umbrella initiative, a centralized "hub" of all things food rescue, so there is one-stop for information for donors and agencies alike. This initiative will be utilizing a central platform to manage the matching of donors to agencies and to provide the transportation solution, which also capturing critical metrics. Additionally, they are focusing on building capacity within the agencies to allow them greater ability to receive and distribute food.

Within the last year and a half, Joint Venture has applied for grant funding to help support the needs of food assistance agencies. They have also compiled a list of all food assistance agencies in the County and begin surveying them to understand their needs and

how to better support the agencies. Joint Venture has also selected an online platform to match donations to food assistance agencies. In addition, they have also comprised a small group of key stakeholders in the County to provide input and guidance on the efforts, and to serve as ambassadors of the initiative. Joint Venture is working on developing a partnership with city waste reduction and sustainability staff to work on these efforts. Creating a conversation about government policy is an important step that is needed in order to help reduce food waste within Santa Clara County.

- The *Food Rescue Services, Barriers, and Recommendations in Santa Clara* study completed by Food Shift on behalf of Santa Clara County outlines how food waste is being managed within the County. Several organizations and community groups have been working in the Santa Clara County area, such as Food Runners (which matches and transports food to pantries and meal assistance kitchens) and Second Harvest Food Bank (which transports, distributes on site, and distributes through their partner pantries), and are well established. As outlined in the report, common barriers are seen in Santa Clara County regarding rescuing food. The greatest barriers for food rescue organizations is the lack of infrastructure and capacity. Limited staff, transportation, and storage can impact how much food can be delivered and donated. Unpredictable donations and unreliable collections can also make it difficult for donors and rescuers to move food through their networks. An increase in capacity and collaboration among the stakeholders is needed to help reduce food waste and improve recovery efforts.

Each of the above mentioned activities increasing capacity and collaboration play a critical role in reducing waste by either not generating as much food scraps prior to disposal or finding innovative ways to move edible food to organizations that can feed hungry people. There are over 25 organizations in the Santa Clara County region providing opportunities to reduce wasted food and landfilling of food scraps.

## 7.2 RECOMMENDATIONS FOR ADDITIONAL EFFORTS

In order to understand the expanse of the food waste reduction activities within Santa Clara County, SCS researched each of the cities within the County to understand what food waste reduction activities occur through city staff efforts, and companies that provide food waste recovery programs.

### 7.2.1 City Food Waste Reduction Efforts

SCS researched food waste reduction programs for each of the fourteen cities and the County to identify existing education efforts and available tools to reduce or prevent food waste. The research was initiated with a survey distributed to the cities with the following questions.

- Other than the Countywide program, what else have you done to contribute to food waste donation and recovery?
- Is information available on the number of businesses and/or volume of material that is donated on a weekly, monthly or annual basis?

- How many locations with your jurisdiction accept donated food? Provide name and address if possible.
- Do you track the quantity of food they accept each month?
- What food waste reduction programs do you have?

Of the fifteen municipalities surveyed, three did not respond, and six said that they have not contributed to food waste donation and recovery efforts. There were six municipalities that provided information on the food waste donation and recovery efforts happening within their jurisdiction. The programs range from Save the Food media campaign, providing reusable produce bags with food storage tips to reduce waste, outreach methods via cooking classes, broadcast outreach, events with interactive tables, bill inserts, and social media. Full details of all responses are included in **Attachment C**, and information from the six active municipalities are summarized in **Table 17**.

**Table 17. Food Waste Reduction Activities**

City	Other than the Countywide program what else have you done to contribute to food waste donation & recovery?	Is information available on the number of businesses and/or volume of material that is donated on a weekly, monthly or annual basis?	How many locations within your jurisdiction accept donated food? Provide name/address if possible.	Do you track the quantity of food they accept each month?	What food waste reduction programs do you have?
Cupertino	Encourage donation to West Valley Community Services	Cupertino, in partnership with the franchised hauler, participates in data gathering as part of the EPA's Food Recovery Challenge. Estimated donated quantity was 130.3 tons in 2016.	1 - West Valley Community Services 10104 Vista Dr, Cupertino, CA 95014	No	We support "Save the Food" media campaign and provide reusable produce bags with food storage tips included to reduce waste.
Milpitas	No	No	No	No	Public awareness and community promotion via "Save the Food" media campaign that is pushed to City webpage and Facebook.
Mountain View	Nothing	No. We only know how many people took the home composting class offered by the County.	1 - Community Services Agency, 204 Stierlin Road, Mountain View, 94043 2 - Hopes Corner (at Trinity United Methodist Church) 3- 748 Mercy Street,	No	No specific programs, just outreach through our newsletters, social media and website, for example tagging onto the EPA Food Too Good Waste, Ad Council and BayRoc campaigns.
Palo Alto	Palo Alto has connected Piazza's Grocery Store with Second Harvest Food Bank. Palo Alto is looking to make a similar connection with Mollie Stone's Market.	No	All Saints Church Food Pantry, Jerusalem Baptist Church, Opportunity Center	No	We have worked mainly with residents - cooking classes, broadcast outreach, events with interactive tables (e.g., making EAT FIRST boxes). We have done some outreach to the business community via bill insert and a survey of restaurants, but we have no way to measure if that increased donations. Probably not.
Santa Clara County	Provide information through businesses via AB 1826 outreach visits and Green Business Newsletter.	No	Levi's stadium, Santa Clara University and the convention center are some of the venues that donate food.	No	N/A
Sunnyvale	Sunnyvale is working with Second Harvest Food Bank currently on a food rescue pilot at grocery stores.	Check with Second Harvest to get this information. They track the number of businesses and total tons collected.	Sunnyvale Community Services and Ecumenical Hunger Program participate in food rescue in Sunnyvale.	No	We will be doing more food waste reduction education as we implement our residential food scraps program city-wide in fall 2017.

### 7.2.2 Companies Providing Food Recovery

There are seven companies that provide food recovery options for local businesses:

- **Copia**, a San Francisco based food recovery company that uses technology to provide a solution for food waste. Users log on to their app and get matched in real-time with the most appropriate nonprofit that will accept their food. Customers also receive access to food waste trends to help improve purchasing and cut back on food waste. Copia serves most of the San Francisco Bay Area and customers in Santa Clara County include the San Francisco 49ers and Zesty Catering in San Jose.
- **Re-Plate** is another food recovery company that uses a similar technology as Copia to match business' excess food with those who are in need. Replate is a rapidly growing company in the Bay Area with operations in Silicon Valley and San Jose.
- **CropMobster** is an online community-based exchange system for food and agricultural companies who want to exchange surplus food, equipment, jobs or information. Similar to Craigslist.com, users post ads for excess foods which other users can reply to and coordinate a pickup. Santa Clara County residents can post and see ads for excess food and help reduce the amount that is wasted through donation.
- **Peninsula Food Runners** is a volunteer organization dedicated to alleviating hunger by providing free collection of excess perishable and prepared food from restaurants, caterers, bakeries, wholesalers, event planners, corporate cafeterias, farmer market vendors, and hotels. Food Runners has a growing network of 160 volunteers which pickup at more than 100 donor locations to serve over 30,000 meals a week. Donors create online accounts and are matched with nearby agencies where their food can be donated.
- **ChowMatch** is a software company based in Silicon Valley that uses matching logic to connect agencies with surplus food donated by restaurants, grocery stores, caterers, farms, and many others. The technology helps to streamline the distribution of untouched surplus food to agencies and organizations such as family shelters, homeless shelters, neighborhood-feeding programs, churches, schools, 100% affordable housing programs, and many other outreach programs. Peninsula Food Runners currently uses this technology to connect their donors within Santa Clara County to recipients in the community.
- **Village Harvest** is a nonprofit volunteer organization based in San Jose whose mission is to provide food for the hungry, and promote sustainable use of urban resources. Village Harvest works closely with food agencies and community groups in Santa Clara County to provide food banks with local healthy food that would go to waste in Bay Area backyards. Volunteers harvest and transport food, and organize events throughout the year.

### 7.3 FOOD RECOVERY RECOMMENDATIONS

Based on the results of the research, SCS has developed a number of recommendations for enhancing food recovery efforts in Santa Clara County:

- Develop a business recognition program to encourage businesses to reduce food waste. Santa Clara County can then reward businesses who have achieved a high percentage of food waste diversion. This will help reduce food waste and create beneficial marketing opportunities for businesses.
- Develop a social media contest for businesses showing how they reduce food waste at work. Getting the community to use hashtags when circulating information via social media may increase awareness of food waste reduction activities happening within Santa Clara County. Prizes can be offered to those who are the most creative or have the greatest impact on the environment.
- Offer workshops where people can learn and discuss opportunities to reduce food waste at home and at their workplace. Workshops should be offered annually or quarterly, and should include topics such as food waste reduction strategies, smart storage, shopping guidelines, and meal planning.
- Offer free cookbooks to help reduce food waste by guiding readers how to shop, portion, and store foods. An example of this is the “Waste Free Kitchen Handbook” by Dana Gunders. By offering free cookbooks, people can educate themselves on how to prepare and cook foods while wasting less.
- Initiate a program to connect farmers with surplus crops to food banks. Start a coalition of food banks and other organizations that are in need of food to connect with local farmers association. Establishing a network between these two groups can help bridge the gap between surplus food and people in need of food.
- Require or reach out to grocery stores to stock produce that is blemished or less than perfect. Stores can start by requesting their suppliers and farmers to send shipments of less than perfect produce and selling it at a discounted rate.
- Educate businesses and residents about the Bill Emerson Good Samaritan Donations Act, which is a federal law ensuring that donors are protected from any civil and criminal liability, as long as the product is donated in good faith.
- Assist with collaboration among the stakeholders to help reduce food waste and improve recovery efforts. Educate businesses and growers on food donation and the available federal tax deductions. There are a variety of tax incentives in the form of tax credits or deductions that are available to donating businesses. For more details, refer to the Tax Deduction for Food Donation Legal Guide. In order to be eligible for a tax deduction, the donor must meet three main requirements:

1. The donor organization must donate food to qualified domestic 501(c)(3) nonprofit organizations that use the food solely for care of the ill, the needy or infants.
2. The recipient must use the donated food in a manner consistent with the purpose constituting that organization's exempt 501(c)(3) status.
3. The recipient organization may not use or transfer the food "in exchange for money, other property, or services".

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

The information presented in this study provides the County with an understanding of the existing and future generation of organic materials, as well as the existing and future capacity of organic materials facilities and programs. This data is critical to plan for the organic materials infrastructure that will be necessary to reduce, recover, collect, and process the anticipated volumes of materials that will be diverted as a result of new legislation and regulatory requirements. The Study conclusions and recommendations are included below.

### 8.1 CONCLUSIONS

The conclusions of this study are based on the research conducted on existing and projected quantities of organic material generated within the County, the available and projected needed capacity at organics processing facilities, alternative organics processing, and food rescue activities. The first priority was to understand the quantities and types of organic material accepted and processed by existing facilities. Due to expanded collections, all facilities anticipate increased quantities of compostables (mixed food and compostable paper from residential or commercial sources) and see the need to add processing capacity. Although the findings show unused permitted capacity, most interviewees reported that facilities are running close to through-put capacity and some are turning away material or transferring material out-of-county for processing. Almost all sites reportedly have plans to apply for increased permitted capacity to accept more material or expand their facility. However, the ability to expand existing operations or build new facilities is highly dependent on obtaining air quality permits.

It is estimated a total of 657,100 tons of organic materials are generated annually from both commercial and residential sectors in the County. Of the total organic materials generated, 415,800 tons (63%) are diverted and 241,300 tons (37%) are disposed.

A total of 108 organics material processing facilities located outside of Santa Clara County (within 100 miles) were identified as having the potential to process organic materials from the County. Sixty two of the facilities were classified as not available for processing materials from the County, because they either do not accept material from the public, or they are located too far from Santa Clara County to be considered viable. Three facilities do not have available capacity and 40 facilities have some capacity available for organic materials, however the data is provided as a range, and therefore a specific number is not available.

The estimated amount of additional capacity projected to be available at organics facilities is 456,000 to 639,000 tons per year, which includes both current permitted capacity and potential expansion. Five facilities are planning some type of modification, and only three are adding new capacity: Kirby Canyon Landfill, Z-Best and ZWEDC. The facility expansions range from 500 to 650 tons per day of organic material, and material types vary from source separated food scraps, compostable material, mixed MSW, and green waste. There are no new organic materials processing facilities planned within Santa Clara County and no expansions have completed permitting and final capacity is subject to change. One out-of-County facility, Waste Management Davis Street, is adding new processing capabilities. Altamont Landfill is also expanding its composting operation, but the facility was not included due to its considerable

distance from Santa Clara County. Two facilities have dates for their anticipated modifications: Sunnyvale SMaRT Station and Waste Management Davis Street, however both are not adding to their approved capacity.

New organics processing technologies or other processing approaches were researched to address the gap in capacity, including the following:

**Additional composting capacity:** Research on backyard composting, mid-sized composting operations at schools and institutions, parks, community gardens and farms, golf courses, and horse stables was conducted but limited information was available on the disposition of their materials. Some activities are occurring, including grasscycling, and on-site composting, however due to the limited information available, the quantity of organics diverted through these measures is unknown.

**Onsite processing technologies:** These include small scale composting processes that could be utilized on-site by large food waste generators. Examples include dehydrators or small composters, however depending on the technology, the generator may still need to contract for the collection, removal, and composting of the end product. This solution is viable, however it will account for a small percentage of the organic materials generated by commercial businesses.

**Backhauling of organic material:** The survey did not provide any information on how much backhauling was happening, and many of the hauling companies contacted were uncertain as well. Given the limited information available, our team not able to rely on the CalRecycle backhaul number, and the fact that any material that was backhauled to a distribution center would not be calculated in the current waste stream (i.e. not in the generation numbers identified in Section 2 above), this number does not appear to be as important to the scheme of understanding all organics.

Another activity that was researched was food recovery. There are a number of gleaning organizations that harvest and donate fruits from trees, often from neighborhood backyards and local orchards. There are seven food rescue organizations working in Santa Clara County, including organizations that utilize websites to connect donors with recipients. A partnership that was started a few years ago between Santa Clara County and Joint Venture Silicon Valley has provided a close collaboration working on a three-year long project to help reduce hunger and food waste in Silicon Valley by developing a regional framework that matches surplus food to authorized agencies.

## 8.2 RECOMMENDATIONS

Additional capacity for organic materials will be necessary over the next 15 years in order for Santa Clara County municipalities to reduce and divert their organic materials. To meet this need, it is recommended that the following steps be considered.

1. Regularly communicate with local and regional organics processors to gain an understanding of their plans and timelines for adding processing capacity.

2. Consider establishing a collaborative process with the municipalities in the County for hauling and/or processing contracts to facilitate advance planning for collection and facilities.
3. Work with CalRecycle to obtain easier access to information on facility permitting and expansion plans and proposals.
4. Monitor and track grant opportunities from CalRecycle and other agencies, and make the information available to potential grant recipients.
5. Monitor and track the quantity of organics generated from each city to gain a better understanding of the types and quantities of organic materials disposed and diverted, as well as the availability of alternative composting activities in the cities.
6. Consider implementing a local organics landfill disposal ban.
7. Consider implementing 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. Consider conducting kitchen audits to measure the quantity of waste generated from the residential sector.

Research was performed on food waste reduction, focusing on food rescue. Section 7 of this report includes recommendations for enhancing food recovery efforts in the County. The recommendations include:

- 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. Stores can start by requesting their suppliers and farmers to send shipments of less than perfect produce and selling it at a discounted rate.
- Educate businesses and residents about the Bill Emerson Good Samaritan Donations Act, which is a federal law ensuring that donors are protected from any civil and criminal liability, as long as the product is donated in good faith.
- Continue to collaborate with stakeholders to help reduce food waste and improve recovery efforts, including educating businesses and growers on food donation and available federal tax deductions.

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
01-AA-0003	Pleasanton Garbage Service	Chipping and Grinding Activity Facility/Operations	Alameda	3110 Busch Road	Pleasanton	Pleasanton Garbage Service, Inc. PO Box 399, 3110 Busch Rd. Pleasanton, CA 94566 PH: 415-846-2042		Green Waste	Active
07-AA-0002	Acme Landfill	Chipping and Grinding Activity Facility/Operations	Contra Costa	950 Waterbird Way	Martinez	Acme Fill Corp. PO Box 1108 Martinez, CA 94553 PH: 925-228-7099		Green Waste	Active
07-AA-0070	Atlas Tree Service, Inc.	Chipping and Grinding Activity Facility/Operations	Contra Costa	150 Medburn Street	Concord	Atlas Tree Services, Inc. 150 Medburn St. Concord, CA 94520 PH: 925-648-2271		Green Waste	Active
07-AA-0066	Composting Operation (Green Waste)	Composting Facility (Green Waste)	Contra Costa	Oliveira Enterprises, Inc.	Byron	Brian H. Oliveira 8005 Bruns Rd., Byron, CA 94514 PH: 209-835-9382		Green Waste	Active
07-AA-0069	Expert Tree Service	Chipping and Grinding Activity Facility/Operations	Contra Costa	150 Old Tunnel Road	Orinda	Expert Tree Service PO Box 1256, Orinda, CA 94563 PH: 925-254-8733		Green Waste	Active
07-AA-0059	Fahy Tree Service	Chipping and Grinding Activity Facility/Operations	Contra Costa	2780 Goodrick Avenue	Richmond	Fahy Tree Service 19 Ranch Rd., San Rafael, CA 94903 PH: 415-472-7263		Green Waste	Active
07-AA-0061	Green Waste Recycle Yard	Chipping and Grinding Activity Facility/Operations	Contra Costa	2550 Garsen Tract Road	Richmond	Arboricultural Specialties, Inc. PO Box 2377 Berkeley, CA 94702 PH: 510-549-3954		Green Waste	Active
07-AA-0067	Hamilton Tree Service	Chipping and Grinding Activity Facility/Operations	Contra Costa	4949 Pacheco Blvd.	Martinez	Tolbert Hamilton 115 Hillside Lane, Martinez, CA 94553 PH: 925-766-4302		Wood & Lumber, Green Waste	Active
21-AA-0060	Bolinas-Stinson Resource Recovery Project	Composting Facility (Green Waste)	Marin	25 Olema Bolinas Road	Bolinas	Bolinas-Stinson Resource Recovery. Project PO Box 390 bolinas, CA 94924 PH: 415-868-1224		Green Waste	Active
21-AA-0005	Marin Sanitary Service	Chipping and Grinding Activity Facility/Operations	Marin	535 Jacoby Street	San Rafael	Marin Sanitary Service Transfer Station 1050 Anderson Drive San Rafael, CA 94901 PH: 415-456-2601		Green Waste	Active
21-AA-0062	Point Reyes Compost Co.	Composting Facility (Agricultural)	Marin	14700 State Hwy 1	Point Reyes	Theodore Stray PO Box 12 Point Reyes, CA 94956 PH: 415-663-8880		Ag. Green Waste, Manure	Active
24-AA-0042	Agromin-Bowles Green Material Composting	Composting Facility (Green Waste)	Merced	13000 Carlucci Road	Dos Palos	Agromin 201 Kinetic Drive, Oxnard, CA 93030 PH: 209-827-3000	319 miles	Green Waste, Ag.	Active
24-AA-0029	Billy Wright Composting Facility	Composting Facility (Green Waste)	Merced	17173 Billy Wright Road	Los Banos	Merced Co. Regional Waste Mgmt. 7040 North Highway 59 Merced, CA 95348 PH: 209-723-4481		Green Waste	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
24-AA-0017	Foster Farms	Composting Facility (Agricultural)	Merced	12997 W. Highway 140	Atwater	Foster Farms Manure Storage Yard 12997 W. Highway 140 Livingston, CA 95334 PH: 209-394-5383		Ag. Mixed Organics, Manure	Active
24-AA-0038	Green Forrest Recycling and Chipping	Chipping and Grinding Activity Facility/Operations	Merced	19230 S. Spruce Road	Los Banos	Frank Soares PO Box 1743 Hollister, CA 95024 PH: NA	86	Green Waste	Active
24-AA-0033	Greenway	Composting Facility (Green Waste)	Merced	2983 East Washington Road	El Nido	Greenway 24596 Rd. 19 Chowchilla, CA 93610 PH: 559-351-5969		Green Waste	Active
24-AA-0020	Highway 59 Compost Facility	Composting Facility (Green Waste)	Merced	7040 N. Highway 59	Merced	Merced Co. Regional Waste Mgmt. 7040 North Highway 59 Merced, CA 95348 PH: 209-723-4481	114 miles	Green Waste	Active
24-AA-0040	Ken Stone#3	Composting Facility (Agricultural)	Merced	7333 Avenue	Merced	Kenneth Stone and Family Spread Services 7333 Childs Ave., Merced, CA 95340 PH 209-358-3200		Ag. Manure	Active
24-AA-0024	Kenneth Stone & Family Spreading Service	Composting Facility (Agricultural)	Merced	W. of Lupin Ave. & 1/4 mile N. of Palm Ave.	Winton	Stone Family 5545 W. Shaw Winton, CA 95388 PH: 209-358-3200		Ag. Mixed Organics, Manure	Active
24-AA-0031	Nakashima Farms Composting #1	Composting Facility (Agricultural)	Merced	10397 West Walnut Avenue	Livingston	Nakashima Farms 10397 West Walnut Ave., Livingston, CA 95334 PH: 209-761-3118		Ag. Mixed Organics, Manure	Active
24-AA-0032	Nakashima Farms Composting #2	Composting Facility (Mixed)	Merced	6492 Arena Way	Livingston	Nakashima Farms 10397 West Walnut Ave., Livingston, CA 95334 PH: 209-761-3118	105 miles	Mixed Organics	Active
27-AA-0119	ArgoThrive, Inc.	Composting Facility (Mixed)	Monterey	26775 Old Stage Rd.	Gonzales	Agrothrive Inc. 26775 Old Stage Rd., Gonzales, CA 93926 PH: 831-675-2853		Mixed Organics, Food Pre-Consumer	Active
27-AA-0095	Eade Ranch	Composting Facility (Agricultural)	Monterey	Hwy 198 East of San Lucas	San Lucas	Gabilan Fertilizer 1091 Madson Lane, Salinas, CA 93907 PH: 831-771-0126		Manures	Active
27-AA-0096	Gabilan Fertilizer Moonglow Dairy	Composting Facility (Agricultural)	Monterey	357 Dolan Road	Moss Landing	Gabilan Fertilizer 1091 Madson Lane, Salinas, CA 93907 PH: 831-771-0126		Manures	Active
27-AA-0107	Monterey Mushrooms	Composting Facility (Agricultural)	Monterey	777 Maher Court	Salinas	Monterey Mushrooms 777 Maher Ct., Royal Oaks, CA 95076 PH: 831-728-8300		Ag. Mixed Organics, Manure	Active
27-AA-0108	Spawn Mate, Inc. dba Mushroom Farms	Composting Facility (Agricultural)	Monterey	415 Hall Road	Aromas	Spawn Mate, Inc. dba Mushroom Farms 415 Hall Road, Aromas, CA 95076 PH: 831-763-5300		Mixed Organics, Manures	Active
28-AA-0045	Buchli Station	Composting Facility (Agricultural)	Napa	1190 Buchli Station Road	Napa	Operator for Rombauer Vineyards 1106 Clark St., Napa, CA 94559 PH: 707-255-0785		Mixed Organics	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
28-AA-0002	Clover Flat Resource Recovery Park	Composting Facility (Green Waste)	Napa	4380 Silverado Trail	Calistoga	Clover Flat Landfill, Inc. 1285 Whitehall Lane, St. Helena, CA 94574 PH: 707-942-4473		Food Wastes, Green Waste	Active
28-AA-0037	Joseph Phelps Vineyards	Composting Facility (Agricultural)	Napa	200 Taplin Road	St. Helena	Phelps, Joseph 2000 Taplin Rd., St. Helena, CA 94574 PH: 707-963-2745		Mixed Organics, Green Waste, Manures	Active
28-AA-0041	Opus One	Composting Facility (Agricultural)	Napa	1144 Oakville Crossroad	Oakville	Opus One Winery PO Box 6 Oakville, CA 94562 PH: 707-948-2433		Green Waste, Mixed Organics	Active
28-AA-0026	Upper Valley Disposal Service	Composting Facility (Green Waste)	Napa	1285 Whitehall Lane	St. Helena	Upper Valley Disposal Service 1285 Whitehall Lane, St. Helena, CA 94574 PH: 707-963-7988		Green Waste	Active
28-AA-0033	Yount Mill Vineyards	Composting Facility (Agricultural)	Napa	1141 Oakville Crossroad	Spanish Flat	Yount Mill Composting PO Box 434 Oakville, CA 94562 PH: 707-944-0857		Mixed Organics	Active
35-AA-0029	Clean Green Recycling	Chipping and Grinding Activity Facility/Operations	San Benito	5890 San Felipe Road	Hollister	CGR-Clean Green Recycling PO Box 2435 Hollister, CA 95024 PH: 408-234-1785		Green Material	Active
35-AA-0026	Comgro Soil Amendments Inc.	Composting Facility (Agricultural)	San Benito	5501 Frazier Lake Road	Hollister	Comgro, Inc. PO Box 4609 Salinas, CA 93912 PH: 831-443-5700		Ag., Manure	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
35-AA-0021	Herbert Compost Operation	Composting Facility (Agricultural)	San Benito	5501 Frazier Lake Road	Hollister	Herbert Compost Operation 1941 Fallon Road, Hollister, CA 95023 PH: 831-637-9571		Ag, Green Waste, Manure	Active
35-AA-0001	John Smith Road Landfill	Chipping and Grinding Activity Facility/Operations	San Benito	2650 John Smith Road	Hollister	Waste Solutions Group of San Benito, LLC 3 Waterway Square Place The Woodlands, TX 77380 PH: 408-283-8500		Green Material	Active
35-AA-0025	Phil Foster Ranch Composting Operation	Composting Facility (Green Waste)	San Benito	3065 Santa Ana Valley Road	Hollister	Phil Foster Ranch, Composting PO Box 249 San Juan Bautista, CA 95045 PH: 831-632-2806		Green Waste	Active
38-AA-0015	Bay View Green Waste Mgt. Company (Private not Public)	Chipping and Grinding Activity Facility/Operations	San Francisco	1300 Carrol Way	San Francisco	Bhas, Sanjay 360 Upland Rd., Redwood City, CA 94062 PH: 650-222-0174		Green Waste	Active
39-AA-0046	Haley Farms Compost Operation	Composting Facility (Agricultural)	San Joaquin	5793 West Delta Avenue	Tracy	Haley Farms 1030 Ladd Road Modesto, CA 95356 PH: 209-835-1549		Mixed Organics , Ag , Manure	Active
41-AA-0188	Davey Tree Company	Chipping and Grinding Activity Facility/Operations	San Mateo	131 Industrial Way	Brisbane	Davey Tree Service 131 Industrial Way, Brisbane, CA 94005 PH: 415-468-9180		Green Waste	Active
Not Listed	PGANDE Martin Service Ctr.	Chipping and Grinding Activity Facility/Operations	San Mateo	731 Schwerin Street	Daly City	PGANDE Martin Service Ctr 731 Schwerin St., Daly City, 94014 PH: 209-329-6785		Green Waste	Active
41-AA-0196	Redwood Debris Box Green Waste Operation	Chipping and Grinding Activity Facility/Operations	San Mateo	1 Beeger Road	Redwood City	Redwood Building Materials 350 Lang Rd., Burlingame, CA 94010 PH: 650-465-1944		Green Waste	Active
44-AA-0009	Ben Lomond LF Wood Waste Chipping Op.	Composting Facility (Green Waste)	Santa Cruz	9835 Newell Creek Rd.	Ben Lomond	County of Santa Cruz 701 Ocean St., Rm 410 Santa Cruz, CA 95060 PH: 831-454-5156		Green Waste, Wood Waste	Active
44-AA-0001	City of Santa Cruz Resource Recovery Fac	Composting Facility (Green Waste)	Santa Cruz	605 Dimeo Lane	Santa Cruz	City of Santa Cruz 809 Center St., Rm 201 Santa Cruz, CA 95060 PH: 831-420-5160		Green Waste	Active
44-AA-0002	City Of Watsonville Landfill	Composting Facility (Green Waste)	Santa Cruz	730 San Andreas Road	Watsonville	City of Watsonville 250 Main St. Watsonville, CA 95077 PH: 831-728-6046		Green Waste	Active
44-AA-0014	Fitz Fresh Mushroom Farm Compost Op.	Composting Facility (Agricultural)	Santa Cruz	211 Lee Road	Watsonville	Fitz Fresh Mushroom Farm Compost Op. 211 Lee Rd., Watsonville, CA 95076 PH: 831-728-0969		Ag. Green Waste	Active
44-AA-0015	Glaum Egg Ranch- Watsonville	Composting Facility (Agricultural)	Santa Cruz	100 Marsh Lane	Watsonville	Glaum Egg Ranch, LLP 3100 Valencia Rd., Aptos, CA 95003 PH: 831-688-3898		Ag. Manure	Active
44-AA-0013	Rodoni Farms Agricultural Composting Op.	Composting Facility (Agricultural)	Santa Cruz	395 Dimeo Lane	Santa Cruz	M. Rodoni & Co. 538 Arroyo Seco Santa Cruz, CA 95060 PH: 831-426-0666		Ag. Green Waste	Active
44-AA-0004	Buena Vista Drive Sanitary Landfill	Composting Facility (Green Waste)	Santa Cruz	150 Roundtree Lane (Office Address)	Watsonville	County of Santa Cruz 701 Ocean St., Rm 410 Santa Cruz, CA 95060 PH: 831-454-5156		Green Waste, Wood Waste	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
49-AA-0408	(Graton) Grant Community Services Wastewater Treatment, Reclamation and Disposal Facility	Bio solids Composting at POTWs	Sonoma	250 Ross Lane	Graton	Bob Rawson PO Box 534 Graton, CA 95444 PH: 707-823-3713		Bio solids/Sludge	Active
49-AA-0393	Atlas Tree Waste Recycling	Chipping and Grinding Activity Facility / Operations	Sonoma	6303 Sebastopol Road (Hwy 12)	Sebastopol	Atlas Tree Surgery 1544 Ludwig Avenue, Santa Rosa, CA 95407 PH: 707-523-4399		Green Waste, Wood Waste	Active
49-AA-0260	Central Compost Site	Composting Facility (Green Waste)	Sonoma	500 Meacham Road	Petaluma	County of Sonoma Waste Mgmt. Agency 2300 County Center Dr., Ste. B-100 Santa Rosa, CA 95403 PH: 707-565-3579		Green Waste	Active
49-AA-0392	Daniel O. Davis, Inc.	Chipping and Grinding Activity Facility/Operations	Sonoma	1051 Todd Road	Santa Rosa	Daniel O. Davis, Inc. 1051 Todd Road, Santa Rosa, CA 95407 PH: 707-585-1903		Green Waste	Active
49-AA-0395	Dolcini Brothers Composting Operation Ag	Composting Facility (Agricultural)	Sonoma	7689 Lakeville Hwy.	Petaluma	Dolcini Brothers 2500 Petaluma Blvd., North Petaluma, CA 94952 PH: 707-763-5775		Manures	Active
49-AA-0369	Grab N` Grow	Composting Facility (Agricultural)	Sonoma	2759 Llano Road	Santa Rosa	Soiland Co., Inc. 3450 A Regional Parkway Santa Rosa, CA 95403 PH: 707-525-1100		Agricultural, Green Waste, Manure	Active
49-AA-0394	Reichert Duck Farm	Composting Facility (Agricultural)	Sonoma	3770 Middle Two Rock Road	Petaluma	Reichert Duck Farm, Inc. 3770 Middle Two Rocks Road, Petaluma, CA 94952 PH: 707-762-6314		Manures	Active
49-AA-0412	Sonoma Valley Organics	Chipping and Grinding Activity Facility / Operations	Sonoma	1180 Fremont Drive	Sonoma	Sonoma Valley Organics 20418 5th East, Sonoma, CA 95476 PH: 707-996-7555		Green Waste	Active
50-AA-0049	3D Ag, LLC	Composting Facility (Agricultural)	Stanislaus	5230 Patterson Road	Oakdale	3D Ag, LLC PO Box 1229 Riverbank, CA 95367 PH: 209-614-3889		Green Waste, Manure	Active
50-AA-0048	CA Soils, Inc	Composting Facility (Green Waste)	Stanislaus	3401 Gaffery Road	Vernalis	CA Soils, Inc. PO Box 345 Westley, CA 95387 PH: 209-835-9530		Green Waste	Active
50-AA-0024	Central Valley Agricultural Grinding, Inc	Composting Facility (Green Waste)	Stanislaus	5707 Langworth Road	Riverbank	Barry, Mike and Konzen, Paul 5507 Langworth Road Oakdale, CA 95361 PH: 209-869-1721		Green Waste	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
50-AA-0050	Eleanor Ranch	Composting Facility (Green Waste)	Stanislaus	5954 Eleanor Road	Oakdale	Tom Dunlop PO Box 1229 Riverbank, CA 95367 PH: 209-614-3889		Green Waste, Ag, Wood Waste	Active
24-AA-0023	Valley Fresh Foods, Inc.	Composting Facility (Agricultural)	Stanislaus	1220 Hall Road	Denair	Not Listed		Mixed Organics, Manures	Active
39-AA-0037	Delicato Vineyards	Composting Facility (Agricultural)	San Joaquin	12001 S. Hwy 99	Manteca	Delicato Vineyards 12001 South Highway 99 , Manteca, CA 95336 PH: 209-824-3600	68	Green Waste	Active
39-AA-0051	Harvest-Lathrop	Composting Facility (Green Waste)	San Joaquin	916 Frewert Road	Lathrop	Harvest-Lathrop 920 West Frewert Road Lathrop, CA 95330 PH: 209-982-1381	64	Ag, C&D, Food, Green Waste	Active
01-AA-0007	Davis Street Transfer Station	Chipping and Grinding Activity Facility/Operations	Alameda	2615 Davis Street	San Leandro	Waste Mgmt. of Alameda Co. 2615 Davis St., San Leandro, CA 94577 PH: 510-657-2425	38	Green Waste, Food Scraps, Organics from MSW	Active (composting Planned)
27-AA-0109	Converted Organics of California, LLC	Composting Facility (Mixed)	Monterey	31677 Johnson Canyon Road	Gonzales	Converted Organics of California, LLC 31677 Johnson Canyon Rd. Gonzales, CA 93926	82	Green Waste, Food Waste	Active
39-AA-0055	Green Man Materials	Composting Facility (Green Waste)	San Joaquin	2800 S. El Dorado Street	Stockton	Green Man Recycling, Inc. 3030 S. Hwy 99 Stockton, CA 95215 PH: 209-464-8701	67	Green Waste	Planned
39-AA-0044	Valley Landscaping	Composting Facility (Green Waste)	San Joaquin	1320 East Harney Lane	Lodi	Valley Landscaping 12900 North Lower Sacramento, Lodi CA 95242 PH: 209-334-3659	85	Green Waste	Planned
01-AA-0299	East Bay Municipal Utility District	Bio solids Composting at POTWs (Anaerobic Digestion)	Alameda	2020 Wake Avenue	Oakland	East Bay Municipal Utilities District 2020 Wake Ave., Oakland, CA 94607 PH: 510-287-1542	41	Bio solids, Food Scraps	Active
01-AA-0289	Altamont Resource + Recovery Facility	Composting Facility (Green Waste)	Alameda	10840 Altamont Pass Road	Livermore	Waste Mgmt. of Alameda Co. 172-98th Ave., Oakland, CA 94603 Ph: 510-613-8710	38	Green Waste, Food Scraps, Organics from MSW	Planned
01-AA-0317	Bio Fuels Systems Inc	Chipping and Grinding Activity Facility/Operations	Alameda	10840 Altamont Pass Road	Livermore	Bio Fuels Systems 1250 Ames Ave., Ste 205 Milpitas, CA 95035 PH: 925-455-5908	38	Green Waste	Active
01-AA-0325	Composting Facility (Altamont Landfill)	Composting Facility (Mixed)	Alameda	10840 Altamont Pass Road	Livermore	Waste Mgmt. of Alameda Co. 10840 Altamont Pass Rd. Livermore, CA 94551 Ph: 925-455-7323	38	Mixed MSW	Planned
01-AA-0308	Vision Recycling	Chipping and Grinding Activity Facility/Operations	Alameda	30 Greenville Road	Livermore	TWDC Industries CORP -Vision Recycling 41900 Boscell Rd., Fremont, CA 94538 PH: 510-429-1300	35	Green Waste	Active
01-AA-0322	Vision Recycling Green Waste Composting	Composting Facility (Green Waste)	Alameda	30 Greenville Road (B)	Livermore	TWDC Industries CORP -Vision Recycling 41900 Boscell Rd., Fremont, CA 94538 PH: 510-429-1300	35	Green Waste	Active
07-AA-0044	WCCSLF Organic Materials Processing	Composting Facility (Mixed)	Contra Costa	1 Parr Blvd.	Richmond	West Contra Costa Sanitary Landfill Inc. 3260 Blume Dr. St. 115, Richmond, CA 94806 PH: 510-262-1660	55	Wood and Lumber, Food Pre-Consumer, Green Waste (accepts from public), Manures, Mixed C&D	Active
21-AA-0001	Redwood Landfill	Composting Facility (Mixed)	Marin	8950 Redwood Hwy	Novato	Redwood Landfill, Inc. PO Box 793 Novato, CA 94948 PH: 415-892-2851	76	Green Waste, Food Pre-Consumer, Mixed Organics, Bio solids/Sludge, Wood/Lumber	Active
21-AA-0063	West Marin Compost	Composting Facility (Agricultural)	Marin	6290 Nicasio Valley Road	Nicasio	Lunny Grading and Paving, Inc. PO Box 730 Nicasio, CA 94946 PH: 415-662-9849	76	Green Waste, Manures (Accepts from public)	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
24-AA-0039	D.A.T.T.	Composting Facility (Agricultural)	Merced	on Washington Rd., 3.8 miles W. of Hwy 59	El Nido	DATT 1224 P St. Newman, CA 95360 PH: 209-862-1618	105	Ag, Manure	Active
24-AA-0019	Stone Family El Nido Composting Facility	Composting Facility (Agricultural)	Merced	Vineyard Way at Grant Road	Merced	Stone Family 5545 W. Shaw Winton, CA 95388 PH: 209-358-3200	106	Ag, Manure	Active
27-AA-0102	Central Coast Compost LLC	Composting Facility (Green Waste)	Monterey	N. of Iverson Rd., and Johnson Cyn Rd.	Gonzales	Central Coast Composting LLC 391 Hames RD, Watsonville, CA 95076 PH: 831-809-6900	82	Manures, Green Waste, Mixed Organics	Active
27-AA-0085	Gabilan Ag Services	Composting Facility (Mixed)	Monterey	14201 Del Monte Blvd.	Marina	Keith Day Co. Inc. DBA Gabilan Fertilizer 1091 Madison Lane, Salinas, CA 93907 PH: 831-771-0126	64	Green Waste, Mixed Organics, Food Pre-Consumer (Accepts from public)	Active
27-AA-0086	Guziks Good Humus	Composting Facility (Green Waste)	Monterey	27921 Iverson Road	Gonzales	The Good Humus Man 24505 Vereda Del Valle, Salinas, CA 93908 PH: 408-484-2626	79	Ag. Green Waste, Manure	Active
27-AA-0122	Johnson Canyon Landfill Compost	Composting Facility (Green Waste)	Monterey	31400 Johnson Canyon Road	Gonzales	Vision Recycling 41900 Boscell Rd., Fremont, CA 94538 PH: 510-429-1300	77	Composting	Active
27-AA-0005	Johnson Canyon Sanitary Landfill	Chipping and Grinding Activity Facility/Operations	Monterey	31400 Johnson Canyon Road	Gonzales	Salinas Valley Solid Waste Authority Box 2159 Salinas, CA 93901 PH: 831-755-1300	77	Green Waste	Active
27-AA-0010	Monterey Peninsula Landfill	Composting Facility (Mixed)	Monterey	14201 Del Monte Blvd.	Marina	Monterey Regional Waste Mgmt. District 14201 Del Monte Blvd., Marina, CA 93933 PH: 831-384-5313	67	Food Wastes, Green Waste, Wood Waste, Bio solids/Sludge	Active
27-AA-0094	Randazzo Enterprises	Chipping and Grinding Activity Facility/Operations	Monterey	13550 Blackie Road	Castroville	Randazzo Enterprises, Inc. 13550 Blackie Road, Castroville, CA 95012 PH: 831-633-4420	58	Green Waste	Active
27-AA-0101	Salinas Mushroom, Inc.	Composting Facility (Agricultural)	Monterey	531 Eckhart Road	Salinas	Salinas Mushroom, Inc. PO Box 294 Chualar, CA 93925 PH: 831-758-1242	67	Manures	Active
27-AA-0121	SmartFerm Pilot Research Composting AD	Composting Facility (Research)	Monterey	14201 Del Monte Blvd.	Marina	Monterey Regional Waste Mgmt. District PO Box 1670 Marina, CA 93933 PH: 831-384-3567	64	Food Wastes, Green Waste	Active
28-AA-0030	City of Napa Materials Diversion Facility	Composting Facility (Mixed)	Napa	820 Levitin Way	Napa	Napa Recycling & Waste Services, LLC PO Box 239 Napa, CA 94559 PH: 707-255-5200	72	Green Waste, (Accept from public), wood/lumber, Food Pre-Consumer	Active
38-AA-0001	San Francisco Solid Waste Transfer and Recycling CTR	Composting Facility (Green Waste)	San Francisco	501 Tunnel Avenue	San Francisco	Recology Properties Inc. 50 California St. 24th Flr., San Francisco, CA 94111 PH: 415-875-1000	72	Other Organics Mgmt.: Food, Green Waste	Active
39-AA-0045	Clean Planet, Inc.	Chipping and Grinding Activity Facility/Operations	San Joaquin	250 Port Road 23	Stockton	Clean Planet, Inc. PO Box 32314 Stockton, CA 95213 PH: 209-472-7422	71	Green Waste	Active
39-AA-0020	Forward Resource Recovery Facility	Composting Facility (Mixed)	San Joaquin	9999 N. Austin Road	Manteca	Forward, Inc./Allied Waste North America 9999 S Austin Road, Manteca CA 95336 PH: 209-982-4298	72	Mixed Organics	Active
39-AA-0057	Green Earth Recovery	Composting Facility (Green Waste)	San Joaquin	20500 Holly Drive	Tracy	Yayo Enterprises PO Box 2643 Union City, CA 94587 PH: 510-760-0977	50	Green Waste	Active

SWIS Number	Name of Facility	Type of Facility	County	Address	City	Business Name	Miles from Santa Clara County (1555 Berger Drive, San Jose, CA 95112)	Material Accepted	Operational Status
39-AA-0026	Scotts Regional Composting Facility	Composting Facility (Green Waste)	San Joaquin	23390 E Flood Road	Linden	O.M. Scotts and Sons Company 23390 Flood Rd., Linden, CA 95236 PH:209-887-3845	87	Green Waste	Active
39-AA-0050	SKS Enterprises	Composting Facility (Agricultural)	San Joaquin	23709 East Brandt Road	Clements	SKS Enterprises PO Box 1109 Ripon, CA 95366 PH: 209-983-0642	92	Green Waste	Active
39-AA-0024	Tracy Material Recovery T.S.	Composting Facility (Mixed)	San Joaquin	30703 S. Macarthur Drive	Tracy	Repetto M PO Box 93, Tracy, CA 95378 PH: 209-835-0601	55	Green Waste (accepts from public)	Active
41-AA-0002	Corinda Los Trancos Landfill (Ox Mountain)	Chipping and Grinding Activity Facility/Operations	San Mateo	12310 San Mateo Road	Half Moon Bay	Browning Ferris Industries of CA, Inc. 12310 San Mateo Rd. (Hwy 92) Half Moon Bay, CA 94109 PH: not listed	40	Green Waste	Active
49-AA-0407	Carneros River Ranch	Composting Facility (Agricultural)	Sonoma	3900 Hwy 37	Petaluma	Carneros River Ranch 275 Sears Point Road Petaluma, CA 94952 PH: 707-592-3104	81	Green Waste, Manures	Active
49-AA-0368	Laguna Sub regional Compost Facility	Bio solids Composting at POTWs	Sonoma	4301 Llano Road	Santa Rosa	City of Santa Rosa Util Dept-Llano Dr 4300 Llano Road Santa Rosa, CA 95407 PH: 707-543-3374	93	Bio solids/Sludge	Active
49-AA-0403	Poncia Fertilizer	Composting Facility (Agricultural)	Sonoma	597 Wilfred Avenue	Santa Rosa	Andy Poncia PO Box 718, Cotati, CA 94931 PH: 707-481-8052	92	Green Waste, Manures	Active
49-AA-0397	Tierra Vegetables	Chipping and Grinding Activity Facility / Operations	Sonoma	224 Mark W Station Road	Santa Rosa	Tierra Vegetables 399 Shiloh Business Ct., Ste 311 Windsor, CA 95492 PH: 707-837-8366	101	Green Waste, Organics-Mixed/Other Compostable	Active
50-AA-0048	CA Soils, Inc	Composting Facility (Mixed)	Stanislaus	3401 Gaffery Road	Vernalis	Central Pacific Holdings, Inc. DBA DPS PO Box 265 Westley, Ca 95387 PH: 209-835-2571	68	C&D-Green Waste	Active
50-AA-0018	City Of Modesto Co-Compost Project	Composting Facility (Mixed)	Stanislaus	7001 Jennings Road	Modesto	City of Modesto / County of Stanislaus	78	Mixed Organics ,Green Waste, Food Pre-Consumer	Active
50-AA-0016	Gilton Resource Recovery Composting Fac.	Composting Facility (Mixed)	Stanislaus	800 S. McClure Road	Modesto	Gilton Resource Recovery Facility, Inc. 755 S. Yosemite Avenue Oakdale, CA 95361 PH: 209-527-3781	85	Mixed Organics	Active
50-AA-0015	Recology Blossom Valley Organics N Hamme	Composting Facility (Green Waste)	Stanislaus	6131 Hammet Road	Modesto	Recology Blossom Valley Organics N. Hamm PO Box 128 Westley, CA 95387 PH: Not Listed	71	Green Waste	Active
50-AA-0015	Recology Blossom Valley Organics N Hamme	Composting Facility (Green Waste)	Stanislaus	6131 Hammet Road	Modesto	Recology Blossom Valley Organics N. Hamm PO Box 128 Westley, CA 95387 PH: Not listed	71	Green Waste	Active
50-AA-0020	Recology Blossom Valley Organics N Verna	Composting Facility (Mixed)	Stanislaus	3909 Gaffery Road	Vernalis	Recology Blossom Valley Organics N. Vern PO Box 128 Westley, CA 95387 PH: None listed	65	Food, Green Waste, Mixed Organics	Active

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
Pleasanton Garbage Service	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	0	Not Listed
Acme Landfill	1,,500	Tons/day	6,195,000	Cubic Yards / not listed	0-8,000	Tons/year	0	Tons/year
Atlas Tree Service, Inc.	50	Tons/week	200	Tons/not listed	0-8,000	Tons/year	0	Tons/year
Composting Operation (Green Waste)	78	Tons	18,000	Cubic Yard / year	10-25,000	Tons/year	0	Tons/year
Expert Tree Service	200	Tons/day	1,500	Tons/year	0-8,000	Tons/year	0	Tons/year
Fahy Tree Service	200	Tons/day	50,000	Tons/year	10-50,000	Tons/year	0	Tons/year
Green Waste Recycle Yard	30	Tons/day	1,200	Tons/year	0-8,000	Tons/year	0	Tons/year
Hamilton Tree Service	200	Cubic Yard / day	36,500	Cubic Yard / year	0-8,000	Tons/year	0	Tons/year
Bolinas-Stinson Resource Recovery Project	120	Cubic Yard / day	8,000	Cubic Yard / year	0-10,000	Tons/year	0	Tons/year
Marin Sanitary Service	0	Cubic Yard / month	50	Cubic Yard / month	0-8,000	Tons/year	0	Tons/year
Point Reyes Compost Co.	12	Cubic Yard / day	6,000	Cubic Yard / year	0-10,000	Tons/year	0	Tons/year
Agromin-Bowles Green Material Composting	200	Tons/day	62,000	Tons/year	Not Listed	Not Listed	0	Not Listed
Billy Wright Composting Facility	300	Cubic Yard / day	9,999	Cubic Yards / not listed	Not Listed	Not Listed	0	Not Listed

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
Foster Farms	520	Cubic Yard / day	120,000	Cubic Yard / year	10-25,000	Tons/year	0	Tons/year
Green Forrest Recycling and Chipping	0	Not Listed	0	Not Listed	0-8,000	Tons/year	0	Tons/year
Greenway	5,000	Cubic Yard / day	10,000	Tons/year	10-25,000	Tons/year	0	Tons/year
Highway 59 Compost Facility	12,500	Cubic Yard / day	25,000	Tons/year	25-50,000	Tons/year	0	Tons/year
Ken Stone#3	12,500	Cubic Yards / not listed	12,500	Cubic Yards / not listed	0-10,000	Tons/year	0	Tons/year
Kenneth Stone & Family Spreading Service	9,000	Cubic Yards / not listed	9,000	Cubic Yard / year	25-50,000	Tons/year	0	Tons/year
Nakashima Farms Composting #1	110	Cubic Yard / day	20,000	Cubic Yard / year	10-25,000	Tons/year	0	Tons/year
Nakashima Farms Composting #2	Not Listed	Not Listed	Not Listed	Not Listed	10-25,000	Tons/year	0	Tons/year
ArgoThrive, Inc.	71	Tons/day	2,600	Tons/year	0-10,000	Tons/year	0	Tons/year
Eade Ranch	5,000	Tons/not listed	12,500	Tons/not listed	10-25,000	Tons/year	0	Tons/year
Gabilan Fertilizer Moonglow Dairy	10,000	Cubic Yards / not listed	6,000	Cubic Yard / year	0-10,000	Tons/year	0	Tons/year
Monterey Mushrooms	3,000	Cubic Yard / day	156,000	Cubic Yard / year	40-80,000	Tons/year	0	Tons/year
Spawn Mate, Inc. dba Mushroom Farms	3,500	Cubic Yard / day	25,000	Cubic Yard / year	0-9,999	Tons/year	0	Tons/year
Buchli Station	40	Tons/day	1,800	Tons/day	0-10,000	Tons/year	0	Tons/year

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
Clover Flat Resource Recovery Park	2,500	Cubic Yards / not listed	2,500	Cubic Yards / not listed	0-10,000	Tons/year	0	Tons/year
Joseph Phelps Vineyards	100	Cubic Yard / day	2,000	Cubic Yards / not listed	0-10,000	Tons/year	0	Tons/year
Opus One	350	Cubic Yard / day	1,000	Cubic Yard / year	0-10,000	Tons/year	0	Tons/year
Upper Valley Disposal Service	34,000	Tons/year	34,000	Tons/year	10-25,000	Tons/year	0	Tons/year
Yount Mill Vineyards	0	Not Listed	0	not listed	0-10,000	Tons/year	0	Tons/year
Clean Green Recycling	200	Cubic Yard / day	62,400	Cubic Yard / year	10-50,000	Tons/year	0	Tons/year
Comgro Soil Amendments Inc.	17,100	Tons/year	17,000	Tons/year	25-50,000	Tons/year	0	Tons/year

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
Herbert Compost Operation	50	Tons/day	5,000	Tons/year	0-10,000	Tons/year	0	Tons/year
John Smith Road Landfill	Not listed for specific activity	N/A	N/A	N/A	0-8,000	Tons/year	0	Tons/year
Phil Foster Ranch Composting Operation	680	Tons/day	2,040	Tons/year	0-10,000	Tons/year	0	Tons/year
Bay View Green Waste Mgt. Company (Private not Public)	8,000	Tons/year	10,000	Tons/year	0-8,000	Tons/year	0	Tons/year
Haley Farms Compost Operation	400	Cubic Yard / year	0	Cubic Yards / not listed	0-10,000	Tons/year	0	Tons/year
Davey Tree Company	160	Cubic Yard / day	5,760	Cubic Yard / year	0-8,000	Tons/year	0	Tons/year
PGANDE Martin Service Ctr.	Not Listed	Not Listed	Not Listed	Not Listed	0-8,000	Tons/year	0	Tons/year
Redwood Debris Box Green Waste Operation	200	Tons/day	15,000	Tons/year	8-40,000	Tons/year	0	Tons/year
Ben Lomond LF Wood Waste Chipping Op.	12,500	Cubic Yards / not listed	12,500	Cubic Yards / not listed	0-8,000	Tons/year	0	Tons/year
City of Santa Cruz Resource Recovery Fac	12,500	Cubic Yards / not listed	12,500	Cubic Yards / not listed	0-8,000	Tons/year	0	Tons/year
City Of Watsonville Landfill	12,500	Cubic Yards / not listed	12,500	Cubic Yards / not listed	0-8,000	Tons/year	0	Tons/year
Fitz Fresh Mushroom Farm Compost Op.	9,000	Cubic Yard / day	468,000	Cubic Yard / year	100-300,000	Tons/year	0	Tons/year
Glaum Egg Ranch- Watsonville	4,380	Cubic Yards / not listed	4,380	Cubic Yards / not listed	0-10,000	Tons/year	0	Tons/year
Rodoni Farms Agricultural Composting Op.	500	Cubic Yard / day	6,000	Cubic Yards / not listed	0-10,000	Tons/year	0	Tons/year
Buena Vista Drive Sanitary Landfill	12,500	Cubic Yards / not listed	12,500	Cubic Yards / not listed	0-8,000	Tons/year	0	Tons/year

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
(Graton) Grant Community Services Wastewater Treatment, Reclamation and Disposal Facility	44	Cubic Yard / Month	600	Cubic Yard / year	0-10,000	Tons/year	0	Tons/year
Atlas Tree Waste Recycling	200	Cubic Yard / day	50,000	Cubic Yard / year	Not Listed	Not Listed	0	Not Listed
Central Compost Site	300	Tons/day	300	Tons/day	0-8000	Tons/year	0	Tons/year
Daniel O. Davis, Inc.	1,500	Tons/month	18,000	Tons/year	8-40,000	Tons/year	0	Tons/year
Dolcini Brothers Composting Operation Ag	500	Cubic Yard / day	50,000	Cubic Yard / year	10-25,000	Tons/year	0	Tons/year
Grab N` Grow	690	Cubic Yard / day	90,000	Cubic Yard / year	10-25,000	Tons/year	0	Tons/year
Reichert Duck Farm	200	Cubic Yard / day	6,000	Cubic Yard / year	0-10,000	Tons/year	0	Tons/year
Sonoma Valley Organics	60	Cubic Yard / day	0	not listed	Not Listed	Not Listed	0	Not Listed
3D Ag, LLC	12,500	Cubic Yards / not listed	31,920	Cubic Yards / Year	10-25,000	Tons/year	0	Tons/year
CA Soils, Inc	250	Cubic Yards / not listed	60,000	Cubic Yards / Year	0-10,000	Tons/year	0	Tons/year
Central Valley Agricultural Grinding, Inc	350	Cubic Yard / day	0	not listed	8-40,000	Tons/year	0	Tons/year

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
Eleanor Ranch	12,500	Cubic Yards / not listed	95,000	Cubic Yards / Year	0-10,000	Tons/year	0	Tons/year
Valley Fresh Foods, Inc.	Not Listed	Not Listed	Not Listed	Not Listed	10-25,000	Tons/year	0	Tons/year
Delicato Vineyards	36	Tons/day	4,000	Tons/year	0-10,000	Tons/year	9,964	Tons/year
Harvest-Lathrop	500	Tons/day	100,000	Cubic Yards / not listed	50-100,000	Tons/year	99,500	Tons/year
Davis Street Transfer Station	5,600	Tons / not listed	9,600	Tons/day	80-240,000	Tons/year	Potentially at Capacity	Tons/year
Converted Organics of California, LLC	250	Tons/day	2,300	Tons/day	Not Listed	Not Listed	Unknown	Not Listed
Green Man Materials	N/A	N/A	N/A	N/A	N/A	N/A	Unknown	N/A
Valley Landscaping	None	N/A	N/A	N/A	N/A	N/A	Unknown	N/A
East Bay Municipal Utility District	250	Tons/day	36,500	Tons/year	25-49,999	Tons/year	Unknown but potential	Tons/year
Altamont Resource + Recovery Facility	N/A	N/A	N/A	N/A	N/A	N/A	Unknown but potential	N/A
Bio Fuels Systems Inc	200	Tons/year	72,800	Tons/year	40-80,000	Tons/year	Unknown but potential	Tons/year
Composting Facility (Altamont Landfill)	N/A	N/A	N/A	N/A	N/A	N/A	Unknown but potential	N/A
Vision Recycling	200	Tons/year	62,000	Tons/year	10-50,000	Tons/year	Unknown but potential	Tons/year
Vision Recycling Green Waste Composting	12,500	Cubic Yards / Year	50,000	Cubic Yard / year	Not Listed	Not Listed	Unknown but potential	Not Listed
WCCSLF Organic Materials Processing	1,134	Tons/day	0	Cubic Yard / day	50-100,000	Tons/year	Unknown but potential	Tons/year
Redwood Landfill	170	Tons/day	60,000	Cubic Yard / year	25-50,000	Tons/year	Unknown but potential	Tons/year
West Marin Compost	200	Tons/day	20,000	Tons/year	10-25,000	Tons/year	Unknown but potential	Tons/year

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
D.A.T.T.	12,500	Cubic Yards / not listed	12,500	Cubic Yards / not listed	0-10,000	Tons/year	Unknown but potential	Tons/year
Stone Family El Nido Composting Facility	40,000	Cubic Yards / not listed	40,000	Cubic Yard / year	10-50,000	Tons/year	Unknown but potential	Tons/year
Central Coast Compost LLC	350	Tons/day	15,000	Cubic Yard / year	50-100,000	Tons/year	Unknown but potential	Tons/year
Gabilan Ag Services	500	Tons/day	200,000	Cubic Yard / year	50-100,000	Tons/year	Unknown but potential	Tons/year
Guziks Good Humus	15,000	Tons/year	20,000	Tons/not listed	50-100,000	Tons/year	Unknown but potential	Tons/year
Johnson Canyon Landfill Compost	12,500	Cubic Yard / day	26,000	Tons/year	10-25,000	Tons/year	Unknown but potential	Tons/year
Johnson Canyon Sanitary Landfill	1,574	Tons/day	13,834,328	Cubic Yard / not listed	0-10,000	Tons/year	Unknown but potential	Tons/year
Monterey Peninsula Landfill	0	Not Listed	0	not listed	25-50,000	Tons/year	Unknown but potential	Tons/year
Randazzo Enterprises	175	Tons/day	5,250	Tons/month	8-40,000	Tons/year	Unknown but potential	Tons/year
Salinas Mushroom, Inc.	300	Cubic Yard / day	1,500	Cubic Yard / not listed	0-8,000	Tons/year	Unknown but potential	Tons/year
SmartFerm Pilot Research Composting AD	75	Tons/day	5,000	Tons/year	1-24,999	Tons/year	Unknown but potential	Tons/year
City of Napa Materials Diversion Facility	90,000	Cubic Yards / not listed	400	Tons/day	25-50,000	Tons/year	Unknown but potential	Tons/year
San Francisco Solid Waste Transfer and Recycling CTR	3,000	Tons/day	5,000	Tons/day	40-80,000	Tons/year	Unknown but potential	Tons/year
Clean Planet, Inc.	200	Tons/day	12,500	Cubic Yards / not listed	10-50,000	Tons/year	Unknown but potential	Tons/year
Forward Resource Recovery Facility	1100	Tons/day	4,180	Tons/day	50-100,000	Tons/year	Unknown but potential	Tons/year
Green Earth Recovery	280	Cubic Yard / day	65,000	Cubic Yard / year	Not Listed	Not Listed	Unknown but potential	Not Listed

Name of Facility	Maximum Permitted Throughput **	Units	Permit Capacity	Units	Actual Daily/Annual Throughput *	Units	Remaining Capacity	Units
Scotts Regional Composting Facility	500	Tons/day	75,000	Tons/year	50-100,000	Tons/year	Unknown but potential	Tons/year
SKS Enterprises	20	Cubic Yard / day	7,040	Cubic Yard / year	0-10,000	Tons/year	Unknown but potential	Tons/year
Tracy Material Recovery T.S.	1,038	Tons/week	69	Cubic Yards / not listed	25-50,000	Tons/year	Unknown but potential	Tons/year
Corinda Los Trancos Landfill (Ox Mountain)	0	Not Listed	0	not listed	0-8,000	Tons/year	Unknown but potential	Tons/year
Carneros River Ranch	55	Cubic Yard / day	20,000	Cubic Yard / year	0-10,000	Tons/year	Unknown but potential	Tons/year
Laguna Sub regional Compost Facility	410	Cubic Yard / day	30,800	Cubic Yard / year	10-25,000	Tons/year	Unknown but potential	Tons/year
Poncia Fertilizer	2,000	Cubic Yard / month	8,000	Cubic Yard / year	0-10,000	Tons/year	Unknown but potential	Tons/year
Tierra Vegetables	10	Cubic Yard / day	1,000	Cubic Yard / year	0-8,000	Tons/year	Unknown but potential	Tons/year
CA Soils, Inc	175	Tons/day	63,000	Tons/year	25-49,999	Tons/year	Unknown but potential	Tons/year
City Of Modesto Co-Compost Project	43332	Cubic Yards / not listed	43,332	Cubic Yards / not listed	50-100,000	Tons/year	Unknown but potential	Tons/year
Gilton Resource Recovery Composting Fac.	471	Tons/day	471	Tons/day	25-49,999	Tons/year	Unknown but potential	Tons/year
Recology Blossom Valley Organics N Hamme	125	Cubic Yards / not listed	125.00	not listed	8-40,000	Tons/year	Unknown but potential	Tons/year
Recology Blossom Valley Organics N Hamme	125	Tons/day	250	Tons/day	8-40,000	Tons/year	Unknown but potential	Tons/year
Recology Blossom Valley Organics N Verna	2,000	Tons/day	300,000	Cubic Yards / not listed	300,000-above	Tons/year	Unknown but potential	Tons/year

Table 1

Summary of Facility Type 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 Works)	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	
<b>TOTAL</b>	<b>9</b>	<b>8</b>	<b>5</b>	<b>12</b>	<b>15</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>4</b>	<b>7</b>	<b>12</b>	<b>11</b>

108

Table 2

Summary of Facilities by Material Type by County													
Material Type	Alameda	Contra Costa	Marin	Merced	Monterey	Napa	San Benito	San Francisco	San Joaquin	San Mateo	Santa Cruz	Sonoma	Stanislaus
Bio Solids/Sludge	1		1		1							2	
Food Scraps	3	2	1		6	2		1	1				2
Green Waste	6	8	5	5	8	5	4	2	9	4	6	8	9
Manure			2	6	7	1	2		1		1	5	2
Mixed MSW	3		1	1									
Mixed Organics				4	5	4		1	2			1	4
Wood / Lumber		1				1			1		2	1	1

**Outcome:** The City of Palo Alto was the only jurisdiction that had any information on how many residents backyard compost. Although the estimation will be high for other cities, we used this to get an estimate of number of households that participate.

Cities	Population for City (provided by City)	Households (United States Census Bureau 2011-2015)	% of Households that Backyard Compost	No. of Households that Backyard Compost	Annual Average Pounds per Household of Food Scraps**	Estimated Overall Pounds of Food Scraps that are Backyard Composted Annually	Anticipated Growth % in Program
Campbell	42,584	16,042	10%	1,604	0.24	385	Unknown
Cupertino	60,189	20,422	10%	2,042	0.24	490	Unknown
Gilroy	51,701	14,989	10%	1,499	0.24	360	Unknown
Los Altos	30,177	10,877	10%	1,088	0.24	261	Unknown
Los Altos Hills	7,922	3,047	10%	305	0.24	73	Unknown
Los Gatos	30,000	12,146	10%	1,215	0.24	292	Unknown
Milpitas	69,783	20,792	10%	2,079	0.24	499	Unknown
Monte Sereno	3,485	1,211	10%	121	0.24	29	Unknown
Morgan Hill	40,872	13,460	10%	1,346	0.24	323	Unknown
Mountain View	76,260	32,714	10%	3,271	0.24	785	Unknown
Palo Alto	75,000	26,087	10%	2,609	0.24	626	Unknown
San Jose	1,042,094	314,297	10%	31,430	0.24	7,543	Unknown
Santa Clara	120,245	43,433	10%	4,343	0.24	1,042	Unknown
Santa Clara County RWRD	87,764	26,052	10%	2,605	0.24	625	Unknown
Saratoga	30,000	10,800	10%	1,080	0.24	259	Unknown
Sunnyvale	148,372	55,094	10%	5,509	0.24	1,322	Unknown
<b>TOTAL in County</b>	<b>1,916,448</b>	<b>605,421</b>	<b>10%</b>	<b>62,146</b>	<b>0.24</b>	<b>14,915</b>	

\* Palo Alto was the only city to provide data; in absence of additional City data, Palo Alto's 10% is being used.

\*\* Cascadia Consulting Average

**Outcome:** 6 cities state schools have organics collection through their hauler, and none of them knew if the school had onsite composting. Most tonnage that is taken by the hauler is reported, not sure if there is more tonnage out there that is being composted on-site, if there is it estimated to be a small

Cities	Number of Schools in Jurisdiction	Number of Schools with onsite Composting	Number of Schools that have Organics Collected by Hauler	Total Volume of Material	Notes
Campbell	36	0	3	Unknown	(2) 95 gal/wk, 190 gal/wk, 4yd/wk
Cupertino	27	Unknown	Unknown	Unknown	
Gilroy	Unknown	Unknown	Unknown	Unknown	
Los Altos	Unknown	Unknown	Unknown	Unknown	
Los Gatos	29	0	5	Unknown	3 (95 gal/wk) 2 (1.5-2yd/week)
Milpitas	14	0	Unknown	Unknown	
Monte Sereno	1	0	1	3yds and 95 gal/week	
Morgan Hill	15	0	0	Unknown	
Mountain View	11	Unknown	2	Unknown	2 schools-diverting food/soiled paper-pkup by hauler. 5 schools use yard trimmings carts for garden, not food.
Palo Alto	35 (17 private)	0	18	No one at City has a good record of who is doing what. Even if some of the schools are doing some composting on site, it is very limited.	
San Jose	92	City was uncertain (37 gardens)	9	Unknown	
Santa Clara	1	Unknown	Unknown	Unknown	
Santa Clara County	3	2	Unknown	Unknown	
Saratoga	25	0	0	Unknown	
Sunnyvale	31	0	9	Unknown	

Outcome: SCS contacted the larger junior colleges but were not able to receive any feedback regarding on-site composting operations. 17 locations appear to have their landscaping company take material and 5 companies use their hauler to take organic material. No estimates were provided on tonnage.

Cities	No. of Institutions in Jurisdiction*	Name of Institution	On-Site Composting?	Materials accepted?	No on-site, what else are they doing with compost?	Total Volume of Material? Entire amt. from Cafeteria? Only parts of material? Need % and information entered in NOTES column	Notes:
Campbell	0	N/A	N/A	N/A	N/A	N/A	
Cupertino	3	DeAnza Community College	No	Unknown	Recology Services	~8 tons/month	~2ton food scraps in compactor to compost off site by Recology and ~30yd landscaping bin 1x/wk
Gilroy	1	Gavilan College	Unknown	Unknown	Unknown	6-2-17 left v/m w/ Jeff Gopp	
Los Altos	1	Foothill College	Unknown	Unknown	Unknown	closed after 12pm Fridays ( 6.2.17); 6-5-17 need to call back w/ auto system; left v/m with Andrea Hanstein-pub. Relations/admiration	
Los Gatos	0	N/A	N/A	N/A	N/A	N/A	
Milpitas	1	California Science and Technology University	No	N/A	Landscaper	Not sure	Food scraps=garbage disposal
Monte Sereno	0	N/A	N/A	N/A	N/A	N/A	
Morgan Hill	1	Gavilan College	Unknown	Unknown	Unknown	6-2-17 left v/m w/ Jeff Gopp	
Mountain View	0	N/A	N/A	N/A	N/A	N/A	
Palo Alto	4	Stanford	No	Unknown	Peninsula Sanitary Services Inc. Hauls Material to Newby	Not sure	
Palo Alto		Palo Alto University	No	Unknown	Landscaper	Not sure	
San Jose	14	San Jose City College	Unknown	Unknown	Unknown	N/A?	
San Jose		San Jose State	No	Unknown	Hauling Company	not sure	
San Jose		University of Phoenix	No	Unknown	Landscaper	Not sure	
San Jose		USF College	No	Unknown	Landscaper	Not sure	
San Jose		Cogswell College	No	Unknown	Landscaper	Not sure	
San Jose		Henley Putnam University	No	Unknown	Landscaper	Not sure	
San Jose		Everest College	No	Unknown	Landscaper	Not sure	
San Jose		San Jose - Evergreen Community College	Unknown	Unknown	Unknown		
San Jose		William Jessup University	No	Unknown	Landscaper	Not sure	
San Jose		Carrington College	No	Unknown	Landscaper	Not sure	
San Jose		DeVry University	No	Unknown	Landscaper	Not sure	
San Jose		JFK University	No	Unknown	Landscaper	Not sure	
San Jose		Silicon Valley University	No	Unknown	Landscaper	Not sure	
San Jose		Pepperdine University Executive Program	No	Unknown	Landscaper	Not sure	
Santa Clara	6	Santa Clara University	No	Unknown	Mission Trail Waste Systems	Not sure	
Santa Clara		Golden Gate University	No	Unknown	Landscaper	Not sure	
Santa Clara		Golden State Baptist College	No	Unknown	Landscaper	Not sure	
Santa Clara		Mission College	No	Unknown	Mission Trail Waste Systems	Not sure	
Santa Clara		California College of Communications	No	Unknown	Landscaper	Not sure	
Santa Clara County	0	N/A	N/A	N/A	N/A	N/A	
Saratoga	1	West Valley Junior College	Unknown	Unknown	Unknown	closed on Fridays ( 6.2.17); 6-5-17 cannot get thru automated system (11min wait time) ; left v/m with Kim Aufhauser-park mgmt.	
Sunnyvale	2	Art Institute of California Sunnyvale (closing), Foothill De Anza Community College, Herguan university, TBD	No	Unknown	New site, no material; within 6 months they will be utilizing City landscape bins		

\* The number of known institutions were added in this column, only the larger institutions were documented in the table

**Outcome:** 2 cities knew the material from parks were going to their hauler and grasscycling is performed in 4 cities. It was unknown if community gardens were composting on-site, and only Garrod Farms called back and said they compost on-site.

Cities	No. of Parks	No. of Composting Operations	Amt. of Material Composted	Amt. Sent to Hauler	Amt. Grasscycled	No. of Gardens	No. of Composting Operations	Amt. of Material Composted	No. of Farms	Amt. of material Composted	Amt. sent to Hauler	Amt. Grasscycled
Campbell	9	Unknown; (left v/m w/ Vince Huppe on 6-2-17)	Unknown	Unknown	Unknown	0	N/A	N/A	1	Unknown	Unknown	Unknown
Cupertino	19	Unknown	Unknown	Unknown	Grasscycling done at all turf areas except 4 infields where clippings are hauled to Service Center to be collected for composting	1	Compost piles on site and bin service by hauler	Unknown	0	N/A	N/A	N/A
Gilroy	2	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	10	Unknown	Unknown	Unknown
Los Altos		Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Los Gatos	7	Unknown; email sent to ppw@losgatosca.gov	Unknown	Unknown	Unknown	0	N/A	N/A	28	Unknown	Unknown	Unknown
Milpitas	33	0	Not listed	Unknown	hauled off by to composting facility (96gal cart of yard trim/organics from Spring Valley ea. Week	1	Unknown	Not Listed	0	N/A	N/A	N/A
Monte Sereno	0	N/A	N/A	N/A	N/A	0	N/A	N/A	0	N/A	N/A	N/A
Morgan Hill	26	Unknown, (left v/m w/ Vince Huppe on 6-2-17)	Unknown	Unknown	mowing and tree trimming is performed by contractors; amt. unknown	1	mhcommunitygarden.org home page does not include email or contact phone		10	Unknown	Unknown	Unknown
Mountain View	29	2	Unknown	Unknown-debris box sent to Smart Station	115 acres	2 (3 including Los Altos?)	Unknown	Unknown	0	N/A	N/A	N/A
Palo Alto	36	2	Unknown	32 gallons	Unknown	4	4?	Unknown	0	N/A	N/A	N/A
San Jose	17	Unknown; email sent to Russell.Mackensie@sanjosca.gov	Unknown	Unknown	Unknown	0	N/A	N/A	31	Unknown	Unknown	Unknown
Santa Clara	33	Unknown	Unknown	hauled back to yards and collected by MTWS for processing	Unknown	0 (1 in 2018)	Unknown	Unknown	0	N/A	N/A	N/A
Santa Clara County	7	Unknown	Unknown	92 cy weekly (Trash)	Unknown	0	N/A	N/A	24	Unknown	56 cy weekly (Trash)	Unknown
Saratoga	12	Unknown; email sent to recreation@saratoga.ca.us	Unknown	Unknown	Unknown	0	N/A; Novakovich Orchards: did not want to discuss during harvest season, too busy call back fall or spring; Garrod Farm (Manure/horse ranch) left v/message 6.2.17	N/A	2	Garrod Farms 6-5-17 Jan Garrod called bk ~30yds month composted on-site then given to comm. Gardens and vineyards	Unknown	Unknown
Sunnyvale	23	2	Unknown	Unknown	400 acres	1	Unknown	Unknown	2	Unknown	Unknown	Unknown

**Outcome: 2 cities knew their golf courses composted on-site. Four cities state their hauler takes material, others were not certain what they were doing with material. SCS attempted to call golf courses to seek more information, but no one returned our call.**

Cities	No. of Golf Courses	Composting Onsite?	Mulch Onsite?	Does Hauler pick up material?	Estimated Amt. of Compost Material?	Internal Notes:
Campbell	0	N/A	N/A	N/A	N/A	
Cupertino	2	Blackberry grasscycles	Unknown	Landscape trimmings/tree waste pkup/collected for composting	Unknown	Deep Cliff Golf Course, Blackberry Farm Golf Course
Gilroy	3	Unknown	Unknown	Unknown	Unknown	Gilroy Golf Course 6-5-17 left v/m for Super, Julian, Eagle Ridge Golf Course, Gavilan College Golf Course
Los Altos	1	Unknown	Unknown	Unknown	Unknown	Los Altos Country Club closed on Monday, 6-5-17
Los Gatos	1	Unknown	Unknown	Unknown	Unknown	La Rinconada Country Club 6-5-17 left v/m with Kevin Green
Milpitas	2	Unknown	Unknown	Spring Valley Recology collects 96 gal. cart of yard trimmings	Unknown	Spring Valley Golf Course 6-5-17 left v/m fro Jeff Rockwood, GM, Summitpointe Golf Club 6-5-17 left message for facility with Chad
Monte Sereno	0	N/A	N/A	N/A	N/A	
Morgan Hill	2	Unknown	Unknown	Unknown	Unknown	Coyote Creek Golf Club 6-5-17 left v/m for Michael Fish, GM
Mountain View	1	None	None	Ttree trimmings collected and sent to Smart station	Unknown	Shoreline Golf Links 6-5-17 left v/m with Matt Wisely Green Super, Golf Club Moffett Field 6-5-17 left v/m w/ Gary Pearce, GM
Palo Alto	1 (and 1 currently under construction)	Unknown	Unknown	Unknown	Unknown	Palo Alto Hills Golf Country Club, Palo Alto Golf Course 6/5/17 left v/m for Dirk Zander, GM
San Jose	2	Unknown	Unknown	Unknown	Unknown	Golf Club at Boulder Ridge 6-5-17 closed, San Jose Municipal Golf Course 6/5/17 left v/m for Bob McGrath, GM, Almaden Golf & Country Club, Santa Teresa Golf Club, Cinnabar Hill Golf Club, The Ranch Golf Club
Santa Clara	2	Unknown	Unknown	Unknown	Unknown	Pruneridge Golf Course 6-5-17 left v/m general mailbox for Super, Santa Clara Golf and Tennis Club
Santa Clara County	4	Unknown	Unknown	Recology - no data reported	Unknown	
Saratoga	1	Unknown	Unknown	Unknown	Unknown	Saratoga Country Club 6/5/17 closed on Monday
Sunnyvale	2	Yes	No	Yes	Grasscycle / unknown	Sunnyvale Golf Course Owned and operated by the City of Sunnyvale, Sunken Gardens Golf Course

**Outcome:** 2 cities knew what their stables were doing with manure and were able to provide the volume of material. SCS called stables to get understand where the manure is going, however did not receive calls back, therefore unable to predict how much is composted on-site or off-site.

Cities	No. of Horse Stables and Eq. Centers	Mulch/Compost/ or Haul?	Volume of Manure (May need to call to see what they do?)	Vol. of material needed to be taken? Or is it already counted in haulers numbers?	Internal Notes:
Campbell	0	N/A	N/A	N/A	
Cupertino	2	Unknown	Unknown	Unknown	Whispering Creek Eq. Cntr 6-5-17 lft v/m. w/ Richard Hong, Brookside Stables
Gilroy	3	Unknown	Unknown	Unknown	California Stables, Silver Creek Stables, South Bay Horse Ranch
Los Altos	3	Unknown	Unknown	Unknown	Westwind Comm. Barn, Pagemill Pastures lft v/m 6-5-17 for Giselle, Windy Hill Equestrain
Los Gatos	4	(Bear Creek Stables hauls off)	Bear Creek Stables ~66 cy/wk	Unknown	Bear Creek Stables 6-5-17 lft v/m, JBL Stables, Los Gatos Farms, Fox Equine Rescue & Youth Horsemanship Center
Milpitas	3	Chaparral compost onsite; Indian Hills haul to offsite location	11 cy/wk spread on-site (Chaparral Ranch)40cy/per wk (Indian Hills Ranch)		Chaparral Ranch 6-5-17 Susan,talking w/ partner and calling me back w/ info, Indian Hills horse Ranch, TGIF Farms
Monte Sereno	0	N/A	N/A	N/A	
Morgan Hill	1	Unknown	Unknown	Unknown	Coyote Canyon Ranch 6-5-17 lft v/m for Tyler
Mountain View	0	N/A	N/A	N/A	
Palo Alto	2	Unknown	Unknown	Unknown	Portola Pastures,
San Jose	4	(Lakeview Stable) partially compost and spread onsite	Unknown	Unknown	Lakeview Stable 6-5-17 lft v/m with Jan, Cooksy Family Stables 6/5/17 lft v/m , Alum Rock Riding Academy, Prevost Ranch and Gardens
Santa Clara	0	N/A	N/A	N/A	
Santa Clara County	2	Unknown	Unknown	Unknown	
Saratoga	2	N/A	N/A	N/A	See Farms tab entry for Garrod Farms; Saratoga Equestrian (closed on Monday 6-5-17)
Sunnyvale	1 (Animal Assisted Happiness)	Haul to offsite location	Unknown	Unknown	

**Attachment C**

City	Other than the Countywide program what else have you done to contribute to food waste donation & recovery?	Is information available on the number of businesses and/or volume of material that is donated on a weekly, monthly or annual basis?	How many locations within your jurisdiction accept donated food? Provide name/address if possible.	Do you track the quantity of food they accept each month?	What food waste reduction programs do you have?
Campbell	None	N/A	Unknown	No	None
Cupertino	Encourage donation to West Valley Community Services	Cupertino, in partnership with the franchised hauler, participates in data gathering as part of the EPA's Food Recovery Challenge. Estimated donated quantity was 130.3 tons in 2016.	1 - West Valley Community Services 10104 Vista Dr, Cupertino, CA 95014	No	We support "Save the Food" media campaign and provide reusable produce bags with food storage tips included to reduce waste.
Gilroy	No response	No response	No response	No response	No response
Los Altos	No response	No response	No response	No response	No response
Los Altos Hills	No response	No response	No response	No response	No response
Los Gatos	None	N/A	Unknown	No	None
Milpitas	No	No	No	No	Public awareness and community promotion via "Save the Food" media campaign that is pushed to City webpage and Facebook.

<b>Monte Sereno</b>	None	N/A	Unknown	No	None
<b>Morgan Hill</b>	Nothing yet	No	Don't know	No	None
<b>Mountain View</b>	Nothing	No. We only know how many people took the home composting class offered by the County.	1 - Community Services Agency, 204 Stierlin Road, Mountain View, 94043 2 - Hopes Corner (at Trinity United Methodist Church) 3- 748 Mercy Street, Mountain View, 94041. There might be more, but these are the two I am aware of.	No	No specific programs, just outreach through our newsletters, social media and website, for example tagging onto the EPA Food Too Good Waste, Ad Council and BayRoc campaigns.
<b>Palo Alto</b>	Palo Alto has connected Piazza's Grocery Store with Second Harvest Food Bank. Palo Alto is looking to make a similar connection with Mollie Stone's Market.	No	All Saints Church Food Pantry, Jerusalem Baptist Church, Opportunity Center	No	We have worked mainly with residents - cooking classes, broadcast outreach, events with interactive tables (e.g., making EAT FIRST boxes). We have done some outreach to the business community via bill insert and a survey of restaurants, but we have no way to measure if that increased donations. Probably not.
<b>San Jose</b>	None	N/A	Unknown	No	None
<b>Santa Clara</b>	Provide information through businesses via AB 1826 outreach visits and Green Business Newsletter.	No	Levi's stadium, Santa Clara University and the convention center are some of the venues that donate food.	No	N/A
<b>Santa Clara County</b>	Our Franchise Agreements include food waste collection	No	Unknown	Not at this Time	Other than food waste collection, we do not have any additional food waste reduction programs
<b>Saratoga</b>	None	N/A	Unknown	No	None
<b>Sunnyvale</b>	Sunnyvale is working with Second Harvest Food Bank currently on a food rescue pilot at grocery stores.	Check with Second Harvest to get this information. They track the number of businesses and total tons collected.	Sunnyvale Community Services and Ecumenical Hunger Program participate in food rescue in Sunnyvale.	No	We will be doing more food waste reduction education as we implement our residential food scraps program city-wide in fall 2017.

**Green Business Program  
FY18**

City	Enrolled Prior to FY17	Certified Prior to FY17	Re-certified Prior to FY17	Enrolled in FY17	Certified in FY17	Re-certified in FY17	2nd Re-certification in FY17	3rd Re-certification in FY17	Dropped from Program	Total Recertified	Total Enrolled	Total Certified
Campbell	40	12	6	0	0	0	0	0	12	6	40	12
Cupertino	94	35	9	1	0	1	0	0	10	10	95	35
Gilroy	25	10	8	1	1	0	0	0	2	8	26	11
Los Altos	22	18	11	0	0	0	0	0	4	11	22	18
Los Altos Hills	2	2	0	0	0	0	0	0	2	0	2	2
Los Gatos	71	36	9	1	0	1	0	0	17	10	72	36
Milpitas	24	9	1	0	0	0	0	0	6	1	24	9
Monte Sereno	0	0	0	0	0	0	0	0	0	0	0	0
Morgan Hill	42	20	3	0	0	0	0	0	13	3	42	20
Mountain View	141	81	28	0	0	0	0	0	35	28	141	81
Palo Alto	442	111	24	0	0	0	0	0	75	24	442	111
San Jose	450	233	71	5	2	0	3	0	131	71	455	235
Santa Clara	89	34	9	0	0	0	0	0	13	9	89	34
Saratoga	13	6	2	0	0	0	0	0	4	2	13	6
Sunnyvale	26	51	26	6	6	0	0	0	19	26	32	57
Unincorporated <sup>(1)</sup>	8	4	0	0	0	0	0	0	1	0	8	4
<b>TOTAL</b>	<b>1489</b>	<b>662</b>	<b>207</b>	<b>14</b>	<b>9</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>344</b>	<b>209</b>	<b>1503</b>	<b>671</b>

1 - all inquiries are placed under Unincorporated as many of those inquiring do not state the city their business is in.

2 - this is total enrolled since inception of the program and represents both those businesses that have been certified and those still in process



	Business Name	In Progress	Due for Recent	Date Enrolled	Date Certified	# Enrolled	# Certified	# Re-Certified	# 2nd Re-certification	# 3rd Re-certification
Community Solutions - Gilroy Office										
Detail Xperts of Santa Clara County			1/17/2017	7/20/2017	1	1				
					1	1	0	0		0



	<b>Business Name</b>	<b>In Progress</b>	<b>Due for Recent</b>	<b>Date Enrolled</b>	<b>Date Certified</b>	<b># Enrolled</b>	<b># Certified</b>	<b># Re-Certified</b>	<b># 2nd Re-certification</b>	<b># 3rd Re-certification</b>
					0	0	0	0	0	0





	<b>Business Name</b>	<b>In Progress</b>	<b>Due for Recent</b>	<b>Date Enrolled</b>	<b>Date Certified</b>	<b># Enrolled</b>	<b># Certified</b>	<b># Re-Certified</b>	<b># 2nd Re-Certification</b>	<b># 3rd Re-Certification</b>
Hatifi General Installation, Inc.										
					0	0	0	0	0	0



	<b>Business Name</b>	<b>In Progress</b>	<b>Due for Recert</b>	<b>Date Enrolled</b>	<b>Date Certified</b>	<b># Enrolled</b>	<b># Certified</b>	<b># Re-Certified</b>	<b># 2nd Re-Certification</b>	<b># 3rd Re-Certification</b>
						0	0	0	0	0





Business Name	In Progress	Due for Recert	Date Enrolled	Date Certified	# Enrolled	# Certified	# Re-Certified	# 2nd Re-Certification	# 3rd Re-Certification
HMC Architects			5/18/2017	7/5/2017	1	1			
Vander-Bend			7/20/2017	8/25/2017	1	1			
David J. Powers			7/1/2017	8/25/2017	1			1	
Evergreen Valley Optometry			7/1/2017	8/25/2017	1			1	
Sensiba San Filippo (San Jose)			7/1/2017	8/25/2017	1			1	
					5	2	0	3	0





	Business Name	In Progress	Due for Recent	Date Enrolled	Date Certified	# Enrolled	# Certified	# Re-Certified	# 2nd Re-Certification	# 3rd Re-Certification
Pharmacyclics 1			3/30/2017	7/1/2017	1	1				
Pharmacyclics 2			3/30/2017	7/1/2017	1	1				
Pharmacyclics 3			3/30/2017	7/1/2017	1	1				
Pharmacyclics 4			3/30/2017	7/1/2017	1	1				
Pharmacyclics 5			3/30/2017	7/1/2017	1	1				
Pharmacyclics 6			3/30/2017	7/1/2017	1	1				
					6	6	0	0	0	0



# Composting Education Program

## Quarterly Report: Apr - Jun 2017

Program Contact:

Cole Smith

Coordinator, UCCE

408-918-4641

cbrsmith@ucanr.edu



## Summary:

This is a report of the activities of the second quarter for the Composting Education Program in 2017. During the quarter our workshop season was in full effect. We saw a 20% increase in attendance during this quarter compared to the second quarter of 2016. Our community event participation was also active as the months of April and May are filled with Earth Day celebrations. We also saw an increase in our school outreach due to a group of volunteers becoming involved in teacher communications.

## Report Overview:

### Workshops

Number of Workshops: 14

Total Workshop Attendance: 255

Number of Preregistered: 423

Number of Walk-ins: 29

### Events

Total Events Attended: 10

Total Contacts: 8100

### K-12 Education

Total Schools Visited: 7

Total Students: 440

### Special Lectures

Total Special Lectures: 0

### Rotline Composting Phone Line

Calls received: 190

### Website

Site Visits: 75



Date Class Topic Location	Campbell	Cupertino	Gilroy	Los Altos	Los Altos Hills	Los Gatos	Milpitas	Monte Sereno	Morgan Hill	Mountain View	Palo Alto	San Jose	San Martin	Santa Clara	Saratoga	Sunnyvale	Out of County	Unknown	Total Class
4.1.17 Composting Basics Cupertino		16										2		1					19
4.8.17 Composting Basics Sunnyvale				1								3				9			13
4.15.17 Composting Basics San Jose									1			27		1		1			30
4.15.17 Compost Basics Marital Cotlle	1											10							11
4.22.17 Composting Basics Palo Alto				1	2					2	39	2					1		47
4.27.17 Composting Basics San Jose												2							2
4.29.17 Composting Basics Morgan Hill			2						15			2					1		20
5.6.17 Composting Basics Mn View									1	6					1	2			10
5.13.17 Composting Basics Sunnyvale										2						8			10
5.27.17 Worm Workshop San Jose												8					1		9
6.3.17 Composting Basics Palo Alto										1	17	1					2		21
6.10.17 Composting Basics Sunnyvale										2		2				8			12
6.17.17 Composting Basics Santa Clara										1		4		9		1			15
6.24.17 Composting Basics San Jose												31		3			2		36
Total	1	16	2	2	2	0	0	0	17	14	56	94	0	14	1	29	7	0	255

Date	Community Event	City	Number of Contacts
4.8.17	MG Spring Garden Market	San Jose	1700
4.18.17	Synaptics Earth Day Event	San Jose	150
4.20.17	US Army Reserve	Mtn View	250
4.21.17	Linkedin Earth Day Event	Sunnyvale	300
4.22.17	Earth Day Event	Palo Alto	100
4.23.17	Earth Day Festival	Los Altos	N/A
4.28.17	Arbor Day Festival	Santa Clara	N/A
5.6.17	Martial Cottle Spring Celebration	San Jose	5000
5.20.17	Senior Center	Santa Clara	500
6.24.17	First Congregational Church	San Jose	100

Date	K-12 Site	City	Topic	Number of Students
4.20.17	Galarza Elementary School	San Jose	Worms	100
4.21.17	Saratoga Elementary School	Saratoga	Earth Day Presentation	150
4.21.17	River Glen K-8 Dual Immersion	San Jose	Worms	60
4.26.17	Vargas Elementary School	Sunnyvale	Composting	70
4.28.17	Redwood Middle School	Saratoga	School Garden Composting	N/A
5.2.17	Farnham Elementary School	San Jose	Help starting to Compost	60
5.17.17	Robert Randall Elementary School	Milpitas	Lunchroom Waste	N/A



**San José State**  
UNIVERSITY

---

College of Social Science • Department of Environmental Studies • Center for Development of Recycling • www.RecycleStuff.org  
800/533-841, 408/924-5453 • Fax 408/924-5477 • info@recyclestuff.org • One Washington Square • San Jose, California 95192-0204

---

**Santa Clara County Recycling Hotline and Website**  
**4<sup>th</sup> Quarter Report: April 1, 2017 – June 30, 2017**

- 1) Budget Status
  - a) The quarter and the contract ended within the allocated budget.
- 2) Projects and Activities Completed
  - a) Website Improvements
    - i) Recycling Stories/Quick Facts
      - (1) Student staff continue to develop web content and to post on our social media outlets. Additional “Recycling Stories,” information about a variety of commonly recycled materials, were created and sent to the Director for final review. These brief research papers will be uploaded to RecycleStuff. We expect this research to be continuous through the upcoming academic year.
      - ii) Two new search results categories were developed: “large item (junk) pickup” and “trash.” The intent is to provide search results that assist staff and web visitors identify materials or products that belong in garbage carts.
        - (1) Dozens of materials were entered in our database. Each entry was supported with a synonym, definition, and image.
        - (2) Our research included collecting data from city and service provider websites. We found many sites categorizing a material or product as ‘garbage’ when recycling or reuse opportunities exist. They would be more correct if they made it clear that recycling and donation opportunities exist for some products and materials not accepted by the curbside program.
        - (3) We’ve determined that additional work and programming is needed for the trash and large item web search. This work will begin in the first quarter of the new contract.
      - iii) Sharps and medication drop-off locations were updated and entered on the site.
      - iv) The “recycle by image” project is complete. Recycling searches may now be done by selecting a picture of the materials. A significant amount of time was spent obtaining images (photos) of common recyclables, categorizing, labeling, and uploading them to RecycleStuff.
        - (1) Some minor programming glitches will be addressed in the 1<sup>st</sup> quarter of the new contract.
        - (2) After additional testing, we anticipate moving the “search by image” from its current location to the home page.
    - b) CDR maintains extensive staff and manager operational manuals. These materials were reviewed and it was determined to alter some tasks associated with job titles. Some responsibilities and activities will be changed in the 1<sup>st</sup> quarter. Training materials will be modified as needed following this project.
    - c) Outreach
      - i) Earth Day

- (1) CDR staffed an SJSU Earth Day booth and assisted staffing HHW booths at regional events.
- ii) Recruitment brochure
  - (1) This student recruitment device was redesigned, printed, and distributed.
- iii) Promotional Material
  - (1) A small amount of funds were used to purchase about 500 recycled-content pens and 500 magnets with the RecycleStuff logo and phone number. These will be distributed at outreach events.
  - (2) Student staff continues to share information with the public via the CDR Facebook and YouTube pages.
  - (3) A modified RecycleStuff logo was created.
  - (4) Earth Day posters were created for upcoming events.
- d) RecycleStuff.org data was downloaded, formatted into guides, printed, and placed into binders. These hard copies will be used in case of computer or internet failures, and power outages.
- e) Staff training
  - i) All students new to CDR received training in answering phone calls, making HHW appointments, returning emails and voicemails, and office procedures. Students completed a staff contract and training exam, logged their hours and activities, and were assigned a project or activity to complete.
  - ii) Maps were developed for the unincorporated areas that include haulers and zip codes.
- f) HHW
  - i) CDR students continued to staff HHW collection events on Thursdays, Fridays, and Saturdays. Students are compensated with academic credit.
- g) Office management
  - i) Hundreds of files were reorganized on CDR computers and the network protocol between computers was improved.
- 3) Projects & Activities In-Progress
  - a) CDR will be contracted with San Mateo County to serve as their recycling website. Data will be entered in the first quarter of the new FY. The TAC may wish to consider outreach collaborations with them in the near future.
  - b) Staff will be reviewing material categories for consolidation.
  - c) The HHW staff manual is undergoing improvements. The quality of event location maps is being improved and sections rewritten to improve clarity.
  - d) A redesign of the RecycleStuff home page is underway.
  - e) The number of sites that need to be opened on CDR computers to process information and appointment requests have led us to seek an improvement. We are researching specifications to obtain a computer that can be enabled with two monitors. The Environmental Studies Department is considering the purchase.
- 4) Inquiry Tracking: This report is attached in a separate document.
- 5) Student activities for the 4<sup>th</sup> quarter are attached.
- 6) Invoice: The SJSU Research Foundation will process the invoice.

**2017 Recycling Hotline/Website/Email Inquiry Tracking**

2017	Number of Telephone Inquiries																		Web	E-mail	Question Type																
	Campbell	Cupertino	Gilroy	Los Altos	Los Altos Hills	Los Gatos	Milpitas	Monte Sereno	Morgan Hill	Mtn. View	Palo Alto	San Jose	Santa Clara	Saratoga	Sunnyvale	Unincorporated	Undeclared	Out of County	Call Total	RecycleStuff.org *	e-mail	Inquiry Total	1-Recycle Start-up	2-City Programs	3-Recycle / Reuse	4-Inter-org. Referrals	5-Publications	6-General Info.	7-Undeclared	8-HHW	Total **						
January	7	5	14	12	9	18	11	3	14	17	5	209	22	19	33	8	17	5	428	23618	17	24,063	0	21	93	29	0	7	0	278	428						
February	19	8	12	9	4	13	11	1	22	19	3	301	10	11	21	6	8	4	482	23729	13	24,224	0	9	48	21	0	12	0	392	482						
March	8	4	26	24	7	15	14	2	33	21	7	284	31	8	32	4	12	3	535	32559	21	33,115	0	12	62	12	0	4	0	445	535						
April	12	8	11	7	8	17	9	3	29	18	12	277	27	21	22	7	8	7	503	29,009	13	29,525	0	29	55	23	0	4	0	432	543						
May	17	11	18	6	13	21	19	3	27	20	7	323	35	17	24	6	11	8	586	26,305	18	26,909	0	34	74	13	0	7	0	476	604						
June	9	13	21	12	9	14	34	2	34	22	9	295	37	19	56	7	9	12	614	37,417	14	38,045	0	42	67	28	0	13	0	387	537						
July																			0												0						
August																			0													0					
September																			0														0				
October																			0															0			
November																			0																0		
December																			0																	0	
<b>Total</b>	72	49	102	70	50	98	98	14	159	117	43	1,689	162	95	188	38	65	39	3,148	172,637	96	175,881	0	147	399	126	0	47	0	2,410	3,129						
City Population ***	40,584	60,189	51,701	30,010	8,334	30,391	69,783	3,485	40,836	77,846	66,640	998,537	120,245	30,907	147,559	91,832	n/a	n/a				1,868,879															
Population as % of County	2.17%	3.22%	2.77%	1.61%	0.45%	1.63%	3.73%	0.19%	2.19%	4.17%	3.57%	53.43%	6.43%	1.65%	7.90%	4.91%	n/a	n/a																			
% of Tele Inquiries-YTD	2.29%	1.56%	3.24%	2.22%	1.59%	3.11%	3.11%	0.44%	5.05%	3.72%	1.37%	53.65%	5.15%	3.02%	5.97%	1.21%	2.06%	1.24%																			
% of Inquiry Type -YTD																							0.00%	4.70%	12.75%	4.03%	0.00%	1.50%	0.00%	77.02%					100.00%		
% of Total Referrals-YTD																																					

\* Represents page views \*\* Some residents may call with more than one question type. \*\*\* California Department of Finance, City/County Population Estimates 04/29/16

**CDR Student Hours and Activities: Quarterly Report 2017 (April, May, June)**

Student	Calls	Emails	Hours	Project(s)
Alyssa	23	2	26.5	CDR Existing Meds Update, Zanker Road Materials Update
Andrew M.	17	1	15.5	Student Questions, Phone Training
Andrew V.	34	3	63.5	Verify recyclestuff.org entries, Add new companies
Bide	313	2	55.5	Materials List review, verify Synonyms
Brett	454	11	180	Managing Student Projects/Finalizing Projects, Trash it project
Carlina	489	14	192.5	Updating CDR/HHW Binders, Updating Training Powerpoints
Cuauhtemoc	56	1	13	Student Questions, Phone Training, Image search troubleshooting
Elaina	31	2	16	Student Questions, Phone Training, Updating recycling guides
Emily	64	4	46.5	Recycling Stories (Solar Pannels, LDPE, Propane Tanks), DOR In/Out CalRecycle Update
Erik	225	4	39.5	Updating County Weblinks, Public Service Info, Recycle by Image Project
Franciska	2	2	97	Revise recruitment brochure, udpate r-stuff sponsor brochure, ID promotional materials
Jaime	1	0	11	HHW Check In: Las Plumas Ave.
Jason	318	8	50	Garbage Clock, Trash It! Project, Move out Project
Jen	210	3	27	Social Media, Updating Social Media guide
Jessica	2	1	17	Earth Day Boards, Clean up CDR Images
Jona	87	1	100.5	Materials List review, (Letter A) verify definitions
Josh K. Kitchen	66	2	61.5	Updating HHW Acceptable/Non-Acceptable Materials List, Trash It! Project
Josh W.	7	2	18.5	Materials List review, (Letters E & D), verify definitions and synonyms
Liana	4	0	19	Materials List review, (Letters L & M) verify definitions and synonyms
Lindsay	13	1	29.5	Student Questions, Phone Training
Maayan	54	6	41	Recycling Stories (Proof Reading and Editing), Recycle by Image & Category
Marcos	37	1	49	Materials List review (Letters C,T, R, P, S), verify definitions
Meagan B.	24	2	40	CalRecycle (Sharps, Meds, Tires), Fillable Project Profile, Update Manuals, Trash It! Project
Megan L.	6	0	17	CalRecycle (Sharps, Meds, Tires), Fillable Project Profile, Update Manuals, Trash It! Project
Michael T.	12	1	20	Trash It! Project

Student	Calls	Emails	Hours	Project(s)
Michael F.	89	3	100.5	Verify companies on RecycleStuff.org, enter new companies
Mojgan	45	0	20	Student Questions, Phone Training
My-Linh	21	2	51	Company Updates Letters A - D
Nynette	8	4	262	Assemble Materials for HHW Manuals
Rita	1	0	8.5	Trash It! Project, company Updates
Roshni	0	0	6	Student Questions, Phone Training
Stephanie	2	1	15	Student Questions, Phone Training
Steven	417	12	210	Scheduling, New Student Training, Move out Porject, Quarterly Reports, Re-organize student files
Susan	0	0	16	Student Questions, Phone Training
Taylor	0	0	36	Household Hazardous Waste Collection Check In Staff
Tim	16		41	Flow Charts, City Links, List of new Reuse Companies
<b>Total</b>	<b>3148</b>	<b>96</b>	<b>2012.5</b>	

# County of Santa Clara

Recycling and Waste Reduction Commission of Santa Clara County  
Recycling and Waste Reduction Division

1555 Berger Drive, Building 2, Suite 300  
San Jose, CA 95112-2716  
(408) 282-3180 FAX (408) 280-6479  
www.ReduceWaste.org



---

## **2017 LEGISLATIVE POLICIES AND PRIORITIES** **INTEGRATED WASTE MANAGEMENT**

The County supports:

1. Improved Integrated Waste Management Programs including efforts to promote sustainable resource management; a reduction in greenhouse gases generated from the use of material resources and the collection and disposal of wastes; the standardization of the use of terms; local government authority to direct waste to permitted facilities; local jurisdiction compliance with state waste diversion mandates; and improved accuracy of the State-mandated reporting.
2. **Expanded Product Stewardship and Producer Responsibility** that reduces the amount and toxicity of solid waste generated and shifts physical and financial responsibility to the producers of products for the recovery and disposal of problem wastes through manufacturer implemented take-back programs for products such as pharmaceuticals, sharps, fluorescent lamps, and household batteries.
3. Securing local Integrated Waste Management program **funding and financing**; local solid waste franchising and fee-setting authority; compensation for the collection, recycling, and disposal of waste; and alternative funding sources.
4. Expansion of **Recycling, Composting, and Organics programs and facilities** to strengthen markets for recyclable materials and finished bio-products, encourage the production and purchase of products containing recycled-content materials, and implement a statewide recycling information network.
5. Banning disposal of **organics**.
6. **Energy recovery from landfill gas**, wood wastes, and other source-separated biomass.
7. Performance standards and use of **alternative cover for landfills**, limited to the quantities required, to protect public health and safety and minimize nuisances.
8. Legislation to further address **litter control** and abatement problems in California including enforcement, outreach campaigns, a reduction in single-use containers, other problem containers, and the cleanup of littered areas.
9. Regulations that prohibit the release of **radioactive or radiation-contaminated materials** into the recycling stream.
10. Requirements that products containing hazardous waste be designed, manufactured, and used in ways that avoid harm to workers and the environment and shall be managed and recycled using proper processes and procedures according to environmental regulations and Department of Toxic Substances Control guidelines.

**Commissioners:** James R. Griffith – Chair, Linda J. LeZotte – Vice-Chair, Michael F. Kotowski, Manh Nguyen, Teresa O’Neill, Greg Scharff, Rod Sinks, Jan Pepper, Cat Tucker, Mike Wasserman

11. Elimination of local government **liability under Superfund for the disposal of ordinary municipal waste**, expedited de minimis settlements for hazardous material generated by local government operations, and allocation of costs on the basis of toxicity rather than the volume of municipal waste. Superfund reform should also provide a level of protection to third party investors, lenders, and developers of Brownfield sites.
12. Preventing adoption of state and federal laws and global treaties that preempt local government from protecting public health and the environment.