



DEPARTMENT OF  
GENERAL SERVICES

SOLID WASTE  
DIVISION

CITY OF SACRAMENTO  
CALIFORNIA

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January 10, 2005

City Council  
Sacramento, California

Honorable Members in Session:

**SUBJECT: FEASIBILITY REPORT FOR THE DEVELOPMENT OF A COMMERCIAL  
FOOD WASTE COLLECTION AND RECYCLING PROGRAM IN THE CITY OF  
SACRAMENTO**

**LOCATION AND COUNCIL DISTRICT:** Citywide

**RECOMMENDATION:**

This report recommends that City Council examine existing and future infrastructure requirements as outlined in the White Paper (Attachment 1) to develop a commercial food waste collection program. In addition, the report recommends Council direct staff to develop a food waste collection program that targets areas with high concentration of food waste generators and present it to Council with funding and legislative options to implement food waste recycling in the City of Sacramento.

**CONTACT PERSONS: G. Harold Duffey, Integrated Waste General Manager, 808-4932  
Sherry Newkirk, Waste Reduction Coordinator, 808-4937**

**FOR COUNCIL MEETING OF:** February 1, 2005

**SUMMARY:**

On June 15, 2004, Councilmember Cohn requested that the Solid Waste Division determine the feasibility of implementing a pilot commercial food waste recycling program in the City of Sacramento. The Solid Waste Division developed the attached White Paper, which examines the infrastructure requirements necessary to develop a self-sustaining Commercial and Residential Food Waste Collection program. Based on the information in the White Paper, the City of Sacramento has the population base, the volume of food waste material, and the density of businesses to implement a program. However, infrastructure to support a food waste recycling program will need to be developed to make the program successful and fiscally sound.

**COMMITTEE/COMMISSION ACTION:** None

**BACKGROUND INFORMATION:**

Commercial businesses in Sacramento generate approximately 96,000 tons of food waste annually. The characteristics of food waste generated in Sacramento mirrors that of other major metropolitan cities in California with a high concentration of restaurants and food processors located within specific geographic areas of the city, such as Old Town Sacramento, Midtown and Downtown. Other municipalities in California are currently recycling food waste and other organics in a variety of methods that include preventing food waste, feeding people, converting to animal feed, and composting. Most programs are subsidized through grants or other commercial disposal fees.

The White Paper on Commercial Food Waste Recycling in the City of Sacramento discusses in detail the feasibility of implementing a food waste recycling program and outlines options for consideration and steps for future implementation of a commercial food waste recycling program by Solid Waste.

Significant issues associated with food waste collection include frequency and type of collection. The food waste recycling program assumes separate food waste collection via a 96-gallon container, which may need to be collected on a daily basis, depending upon volume, weather, and close proximity of other businesses.

The Solid Waste Division estimates its per-stop costs to provide food waste recycling using 96-gallon automated containers at \$17.50 per stop, four times the rate of commercial automated garbage collection. The rate is magnified if the customer needs service five times per week, for a total weekly cost of \$86 per week, or \$375 per container per month. In addition, businesses would still need regular garbage service for non-food, non-organic material, typically provided in a 2-4 yard commercial dumpster at a fraction of the cost of automated service. The cost of food waste collection is such a significant increase over commercial bin service that augmentation of the budget will be a necessity in order to implement a City-sponsored food waste collection program.

To implement a cost-effective and business-friendly food waste recycling program, the City of Sacramento would need to build an infrastructure that includes the following:

- Incentives to offset the higher costs of food waste diversion rather than landfill disposal.
- Incentives for local companies to incorporate food waste processing into their current composting programs, or for food waste processors to relocate into the Sacramento region to help reduce collection and processing costs.
- Legislative incentives to allow haulers (private or public) to use franchise fees to reduce the cost of the program.

**FINANCIAL CONSIDERATIONS:**

Sixteen private haulers are permitted to haul waste in the City of Sacramento through a franchise provided by the Sacramento County Regional Solid Waste Authority. None of the

sixteen haulers currently provide food waste collection programs. Any cost associated with the collection of food waste will need to be borne by commercial customers willing to participate in the program and/or by incentives generated through franchise fees or other charges.

The City's Solid Waste Division competes directly with private haulers for commercial business and currently collects approximately 10% of all commercial waste. The current infrastructure would make it difficult for the Solid Waste Division to provide service with such a small customer base located throughout the City. If the City were to operate a food waste collection program, the estimated impact to the Solid Waste Enterprise fund would be approximately \$560,000 per year (new equipment and 2 additional employees), plus processing at a cost of approximately \$25 per ton.

**ENVIRONMENTAL CONSIDERATIONS:**

This is not defined as a project under the California Environmental Quality Act (CEQA), and, therefore, is exempt. Implementation of a food waste recycling program may require further CEQA analysis.

**POLICY CONSIDERATIONS:**


The action requested herein is consistent with the City of Sacramento's Strategic Plan goal of establishing and strengthening community and regional partnerships to enhance the quality of life.

**ESBD CONSIDERATIONS:** None

Respectfully submitted,

  
G. Harold Duffey  
Integrated Waste General Manager

RECOMMENDATION APPROVED:

  
ROBERT P. THOMAS  
City Manager

Approved:

  
Reina J. Schwartz  
Director, Department of General Services

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- 1) White Paper on Commercial Food Waste Recycling in the City of Sacramento, Pages 4-14
- 2) Presentation Materials, Pages 15 - 31

**FOOD WASTE RECYCLING**

COLLECTION,  
TRANSPORTATION,  
& PROCESSING

IN THE

**CITY OF SACRAMENTO**

The purpose of this White Paper is to discuss the feasibility of food waste collection as a future segment of the City's recycling program.

November, 2004

## I. INTRODUCTION

The Solid Waste Division has been requested to determine the feasibility of implementing a commercial food waste-recycling program in the City of Sacramento.

The evaluation process began by reviewing statewide statistics, other California city recycling programs, and finally, City of Sacramento data.

### HISTORY OF FOOD WASTE GENERATED IN CALIFORNIA

Californians toss out over 5 million tons of food scraps each year, which is approximately 16% of all the landfilled material from businesses, residents, and institutions, according to the California Integrated Waste Management Board (CIWMB) Statewide Waste Characterization Study in 1999. This study also characterized California food disposal rates by commercial and residential generators, as shown in Table 1, below:

**TABLE 1  
STATE OF CALIFORNIA  
1999 FOODWASTE CHARACTERIZATION STUDY**

<u>Generator</u>	<u>Percent of Total Food Waste by Sector</u>	<u>Tons Per Year</u>
<b>Commercial</b>	<b>16.3%</b>	<b>2.8 Million</b>
Restaurants	56.0%	1.4 Million
Food Stores	39.8%	39,222
Hotels/Lodging	28.0%	128,703
Schools	20.0%	155,313
Medical/Health	12.1%	247,134
<b>Residential</b>	<b>20.0%</b>	<b>2.7 Million</b>
Single Family	17.4%	1.7 Million
Multi Family	27.2%	971,463
<u>Overall</u>	<u>15.7%</u>	<u>5.6 Million Tons of Food Waste</u>

After reviewing the state statistics, Sacramento was then compared with other major California metropolitan areas. As of January 1, 2004 Sacramento ranked seventh in population. The City is situated in a land area of 96.34 sq. miles and is home to more than 153,362 families.

**TABLE 2  
2004 CALIFORNIA CITY POPULATION DATA**

<u>CITY</u>	<u>2004 POPULATION</u>	<u>CITY</u>	<u>2004 POPULATION</u>
1. Los Angeles	3,912,200	6. Fresno	456,100
2. San Diego	1,294,000	<b>7. Sacramento</b>	<b>441,000</b>
3. San Jose	926,200	8. Oakland	411,600
4. San Francisco	792,700	9. Santa Ana	349,100
5. Long Beach	487,100	10. Anaheim	343,000

Research into the larger metropolitan areas revealed several California cities, comparable in size and population to Sacramento, have also researched, and in some instances implemented, food waste recycling programs. San Francisco, San Diego, Pleasanton, and Alameda County all have food waste recycling programs in place.

Most cities with food waste recycling programs followed the California Integrated Waste Management Board's (CIWMB) recommendation of implementing the program in the following order: (1) **prevent food waste**, (2) **feed people**, (3) **convert to animal feed and/or rendering**, and (4) **compost**.

Sacramento, like other California metropolitan areas, could seriously address the issue of food in the waste stream, by first concentrating efforts to prevent food waste and to feed people. The old adage, "an ounce of prevention is worth a pound of cure", is certainly applicable to food waste. A greater effort to prevent waste will lessen the effort to transport and process it later.

## II. INFRASTRUCTURE: FOOD WASTE COLLECTION

### A COMPARABLE PROGRAM

The City of San Francisco has one of the most successful commercial food waste recycling programs to date. Begun in 1996, the City of San Francisco collaborated with many public and private participants, including the County, produce businesses, a farmer, a hauler, a food bank, and a composter. In its first year, the program provided 450 tons of edible food to charities, 300 tons of inedible food as animal feed, and 750 tons of food to a composting facility. More than 40 wholesale and retail businesses participated the first year. Since that time, the program has greatly expanded.

San Francisco's food waste recycling program includes food scraps (including kitchen prep, plate scrapings, meat and bones), waxed cardboard, wood crates, paper napkins, plates and cups, coffee filters, plant or floral trimmings, paper bags, and certified compostable bags.

San Francisco attributes its success to the following:

- A coordinated effort between government and business
- A financial incentive for businesses that participate
- Densely concentrated restaurants & other food originating businesses
- Two franchised haulers to provide commercial collection service
- A composter located within an economical hauling distance

Sacramento's current commercial collection program significantly differs from San Francisco's.

- Two franchised commercial haulers enable the City of San Francisco to write the program parameters into the franchise agreement. Therefore the program is uniform, available to all businesses, and results can be tracked.

Sacramento has an open franchise system under which sixteen separate commercial haulers provide individual programs and contracts directly to businesses with varying expiration dates.

The City of Sacramento provides collection service to a small share of commercial businesses.

- San Francisco's food waste comprises 25% of their commercial waste stream. Sacramento's food waste comprises 18% of the commercial waste.

Over the past decade, the City of Sacramento's waste stream composition changed as the city evolved. The following table illustrates the latest waste characterization study.

**TABLE 3**  
**1999 CIWMB WASTE CHARACTERIZATION STUDY**  
**City of Sacramento**

<u>Commercial</u>		
Food	18%	52,000
Other Organics	<u>16%</u>	<u>44,000</u>
TOTAL	34%	96,000 Tons Annually
<u>Residential</u>		
Food	17%	21,000
Other Organics	<u>46%</u>	<u>55,000</u>
TOTAL	63%	76,000 Tons Annually

Attached is a GIS density map (Drawing 1) of food preparation establishments located within the City of Sacramento.

These food preparation establishments were identified using data provided by the Sacramento County Environmental Management Department and the Solid Waste Division (John Stender, Sacramento County and Dan Flanders, City of Sacramento).

**DENSITY FACTOR**

The GIS map identifies 1,354 businesses within the City that generate 52,000 tons of food waste annually, according to the Waste Characterization Study completed by the CIWMB. These maps illustrate how densely concentrated these businesses are in the downtown area and Old Sacramento, logical locations for a pilot program. Other, smaller clustered areas could also be considered.

The Solid Waste Division recently interviewed by telephone and in person, knowledgeable people in the food waste recycling industry in California. They recommended implementing the program in tiers to minimize startup problems and to keep the collected material free of contaminants.

Tier One Example:

Large office buildings, government institutions (government office buildings, schools, jails, etc.) hospitals, long-term care facilities, hotels/lodging, and food stores would provide a stable, consistent base to begin a food-waste recycling program.

Tier Two Example:

Restaurants traditionally have a lower profit margin and a higher employee turnover, and thus have a history of being more problematic in implementing new programs. Small businesses are more challenging, yet a viable part of a recycling program.

### III. AFFORDABILITY

#### CITY START UP COSTS

The approximate start up cost of a food waste (and other organics) pilot program for the downtown area would include start up costs and annual expenses. A more detailed, in-house review of the location of City commercial customers, equipment, fuel, maintenance costs, and labor would be required prior to the start of a new collection program.

**TABLE 4  
PRELIMINARY ANALYSIS OF CITY COSTS**

**\$560,000**

\$180,000	Rear load truck purchase (approx.)
\$ 20,000	Annual truck maintenance (approx.)
\$ 10,000	Annual fuel expenses (approx.)
\$350,000	Annual labor costs (approx.) Two Employees
<b>Plus</b> \$ 50,000	Annual Disposal Costs

Because multiple commercial haulers service the downtown area, it is unknown if the City would capture more than its current share of the commercial market. Currently, all of the City's commercial customers' generate approximately:

- 49 tons per day commercial garbage
- 15 tons per day food waste & other organics
- 5 tons per day food waste & other organics generated in the targeted downtown area

#### **COMMERCIAL COLLECTION COSTS (City and Customer)**

Significant issues associated with food waste collection include frequency and type of collection. A food waste recycling program would require businesses to separate food waste via a 96-gallon container, which may need to be collected on a daily basis, depending upon volume, weather, and close proximity of other businesses.

The Solid Waste Division estimates that if the City of Sacramento implemented a food waste recycling program using 96-gallon automated containers, the City's cost for daily collection would be approximately \$17.50 per stop. In comparison, the rate for commercial automated garbage collection service is a quarter of the cost.

The costs for businesses would also rise significantly. A commercial customer's cost for food waste collection at least 5 days per week would total \$86 per week per 96-gallon container, or \$375 per container per month.

Currently, most commercial customers use 2-4 yard bins in which commingled waste (wet food and dry garbage) is collected by a front-end loader. Commingling of waste provides volume discounts and allows businesses to remove three times more waste at 1/3 the cost of automated 96-gallon container service.

With this comparison of rates, it is evident there is no rate incentive to businesses with the program currently in place in the City of Sacramento. Without a financial incentive, businesses may choose not to participate, for they must always be cognizant of the fine line between success and failure.

## **INCENTIVES TO PARTICIPATE**

The City of San Francisco's incentive for commercial customers is a 25% discount rate off the standard garbage collection rate. In addition, members of the restaurant association receive an additional 10% discount. The cost for recycling food waste (and other organics) is less than the cost to landfill material.

This enables restaurants, cafes, grocery stores, hotels, schools, and other food preparation businesses to reduce their garbage bills and recycle all compostable material.

**Businesses:** A rate incentive for Sacramento businesses could be explored through the following options:

- Government financial support
- Local government legislation of mandated participation
- A franchise fee for commercial haulers
- A reduction in business license fees for participation
- Marketing the food waste (and other organics)

**City of Sacramento:** For maximum participation, the greatest volume of material, and the optimal incentive program, the Solid Waste Division could provide commercial Food Waste Recycling collection for all businesses through an exclusive franchise agreement.

**Commercial Haulers:** Current commercial haulers who do not participate in the food waste recycling program could experience a significant reduction in the volume of material collected.

## IV. COOPERATION WITH FOOD PREPARATION BUSINESSES

Approximately 400 food preparation businesses are located in the downtown area. Thirty percent of all food preparation businesses in the City are within the square from Old Sacramento on the west, to the American River on the north, to Alhambra Boulevard on the east, to Broadway on the South.

A voluntary participation program could be developed for businesses located in the targeted area, by offering an incentive to encourage participation.

An alternative to a voluntary program would be a mandated program, requiring all businesses to recycle a percent of their entire waste stream, or the program could just target food waste. A mandated program would be more acceptable if the incentive is great enough for a business to experience an overall reduction in collection costs.

### MANDATORY PROGRAM

#### Pros:

1. Would enable a uniform recycling program to be created and implemented.
2. Would create a large participation base, ensuring a steady flow of material.
3. Would generate sufficient tonnage to market the material competitively.
4. Would aid in the development of business incentives

#### Cons:

1. Businesses and haulers may oppose a government-mandated program: more rules and regulations for businesses, and for haulers a major change in containers and routes, with a possible negative impact on revenue.

### VOLUNTARY PROGRAM

#### Pros:

1. May be more attractive to businesses and haulers.

#### Cons:

1. Implementation may be more difficult due to the number of commercial haulers, numerous types of contracts, and the degree of desire to recycle.
2. An uncertain volume would adversely affect the marketing of the material.

## V. PROCESSING SITES

The further waste is transported, the more expensive and the less attractive a program becomes, due to transportation costs.

That is why other municipalities have chosen their methods of processing (recycling) food waste based on what was readily available. Most chose composting. Some rural communities chose livestock feed, while others chose to look to the future to experiment with new technology. Options for Sacramento may be:

### **PROCESSING AS COMPOST**

A survey of facilities indicated the closest facility permitted to process food-waste is Norcal's Jepson Prairie Organics (JPO) located approximately 35 miles from Sacramento. JPO currently receives compost feedstock from the City and County of San Francisco, City of Vacaville, City of Dixon, California Medical Facility, and University of California at Davis.

JPO processes 100,000 tons of organics each year, but they are currently unable to accept additional tonnages. They have, however, applied for permit modification, which would enable them to receive additional tonnage. Currently, they charge \$25.45 per ton for food/green waste, but advise that is open to negotiation. Officials at Jepson Prairie Organics estimate approval to accept additional materials in January 2005. LEA officials advise the modification effort is still in the land use permit revision process, possibly requiring another 4 to 6 months.

Recently, Grover Landscape Supplies expressed interest in processing food waste. However, no cost for this service was available at the time this white paper was being prepared.

Another potential is discussion with Waste Management, Inc. Through discussions with Waste Management, Solid Waste staff has learned of their interest in permitting a green waste facility in Sacramento County that may include food waste processing. At this time there is no known date when and if this facility may be available, nor is there information on the specific location of the planned facility.

The Solid Waste Authority's proposed Garden Re-Use facility may be able to include food waste. The anticipated timeline for this facility to be available is 2007. At this time there is no specific location identified for the Solid Waste Authority's Garden Re-Use facility.

### **BioGas TECHNOLOGY**

Sacramento Recycling & Transfer Station and SMUD are currently evaluating a process to turn organic waste into renewable energy, biogas and a stable humis-like end product. The process takes place in an enclosed digester. Incoming waste characteristics previously used include: garden waste, 20%; food waste, 63.5%; industrial waste, 15%; and impurities, 1.5%. The process takes from 20 to 30 days.

If funding were already in place, it could still take an additional two years to build the facility, get permitted, and begin receiving food and green-waste material.

## **ALTERNATIVE MARKETING SOURCE**

### **Educate To Prevent Food Waste**

Encourage restaurants, schools, correctional facilities, and nursing homes to review their "up-front" reduction efforts, including better menu planning, storage, presentation, portion control, etc., which are the most proven methods of food waste reduction.

Encourage waste prevention and recycling training for food preparation staff.

### **Encourage Everyone To Feed People**

Promote the concept of donating outdated and surplus material to food banks, shelters, etc. by grocers and other food preparation businesses. In Sacramento, there are organizations currently in place that maintain food banks to feed hundreds of hungry people daily, including children and senior citizens. Some of these organizations are Senior Gleaners, America's Second Harvest, and Sacramento Food Bank Services.

A concerted, organized effort should be initiated to bring edible surplus food to those who have distribution programs already in place. The City can help match "those who have, with those who need" as the first steps in the food waste prevention and recycling effort.

### **Feed The Food Chain**

Additional research advises food waste being used as livestock feed. This concept eliminates the need for processing, but would require the City to locate reliable markets for the never-ending stream of food-waste. Only vegetable matter can be included, to protect the health of the animals eating the food, and ultimately to protect of the food chain.

Potential markets exist in the commercial agricultural areas of Sacramento, Yolo, and San Joaquin Counties.

## **VI. IN CONCLUSION**

Food waste collection is a viable option for a future segment of the City of Sacramento's recycling program. The great challenge is to secure long-term processing that is reasonably priced and within trucking distance.

Initiating a food waste program in the City of Sacramento will positively affect the environment and the diversion rate mandated by AB939. It will also change the method of collection for businesses and have an impact on the cost of disposal (positive or negative) depending upon the market.

After receiving direction to proceed, the Solid Waste Division is prepared to outline the steps necessary to deliver a well-planned, successful, commercial food waste recycling program.

### **CITY START-UP TASKS**

If the City chooses to implement a commercial food waste (and other organics) pilot-recycling program in the downtown area and Old Sacramento, the following additional tasks need to be addressed prior to start-up:

- Visit and observe nearby cities with food waste recycling programs to learn more about the mechanics and cost of their program.
- Identify a processor to recycle the food waste within this geographical area.
- Create a program with incentives for participation.
- Conduct additional analysis to determine the actual cost to implement and maintain the program and the monthly rate per customer needed to finance the program.
- Create and implement an initial public information program for businesses. Then, it would be necessary to survey these businesses to determine participation rates and to establish routes.
- Create printed educational material as preparation progresses to the startup stage of the program ("How To" material to be posted near the containers).
- Educate business owners and employees as to how the program will work. Just prior to start-up, it would be important to educate business owners, managers and employees in a "hands on" demonstration after the containers have been delivered. This would allow the participants to actually see how the process works, what type of food waste goes into the containers, where the containers are placed, collection days, who to call if there are problems, etc.
- Promote the food waste recycling program through press releases to the media, media tours, add information to the web site, offer presentations to business organizations, and introduce the program to all new commercial customers.



# **CITY OF SACRAMENTO**

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*Department of General Services*

## **REPORT BACK ON BUSINESS FOOD WASTE RECYCLING PROGRAM**

**January 18, 2005**



# **CITY OF SACRAMENTO**

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## **CURRENT STATUS OF FOOD WASTE RECYCLING PROGRAM**

- A) In California (Top Ten Cities).
- B) Infrastructure Needed for Sacramento.
- C) Estimated Cost if City Offered Program.
- D) Major Challenges Associated with Food Waste Collection in Sacramento.



# CITY OF SACRAMENTO

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Food Waste Collection in California

## WHAT IS GOING ON IN THE TOP TEN CITIES IN CALIFORNIA

- |                  |                      |
|------------------|----------------------|
| 1. Los Angeles   | 6. Fresno            |
| 2. San Diego     | 7. <b>Sacramento</b> |
| 3. San Jose      | 8. Oakland           |
| 4. San Francisco | 9. Santa Ana         |
| 5. Long Beach    | 10. Anaheim          |



# **CITY OF SACRAMENTO**

Food Waste Collection in California

## **CURRENT FOOD WASTE RECYCLING PROGRAMS**

1. San Diego	Commercial	Compost
2. San Francisco	Commercial	Compost
3. Alameda County	Commercial	Compost
4. Pleasanton	Commercial	Compost
5. Stockton	Commercial	Compost



# **CITY OF SACRAMENTO**

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Food Waste Collection in California

## **STATE OF CALIFORNIA 1999 FOOD WASTE CHARACTERIZATION STUDY**

- 5.6 Million Tons
- 15.7% of State Waste Stream
- Commercial - 2.84 Million Tons
- Residential - 2.73 Million Tons



# **CITY OF SACRAMENTO**

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**Infrastructure Needed for Sacramento  
Business Food Waste Collection**

## **1. FOOD PREPARATION BUSINESS DENSITY & TONNAGE**



# **CITY OF SACRAMENTO**

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**Infrastructure Needed for Sacramento  
Business Food Waste Collection**

## **TOTAL CITY COMMERCIAL WASTE**

**1999 CIWMB – City Of Sacramento**

**Food & Other Organics  
Waste Characterization Study**

**Annually: 96,000 COMMERCIAL TONS**

**Food 18% 52,000**

**Other Organics 16% 44,000**

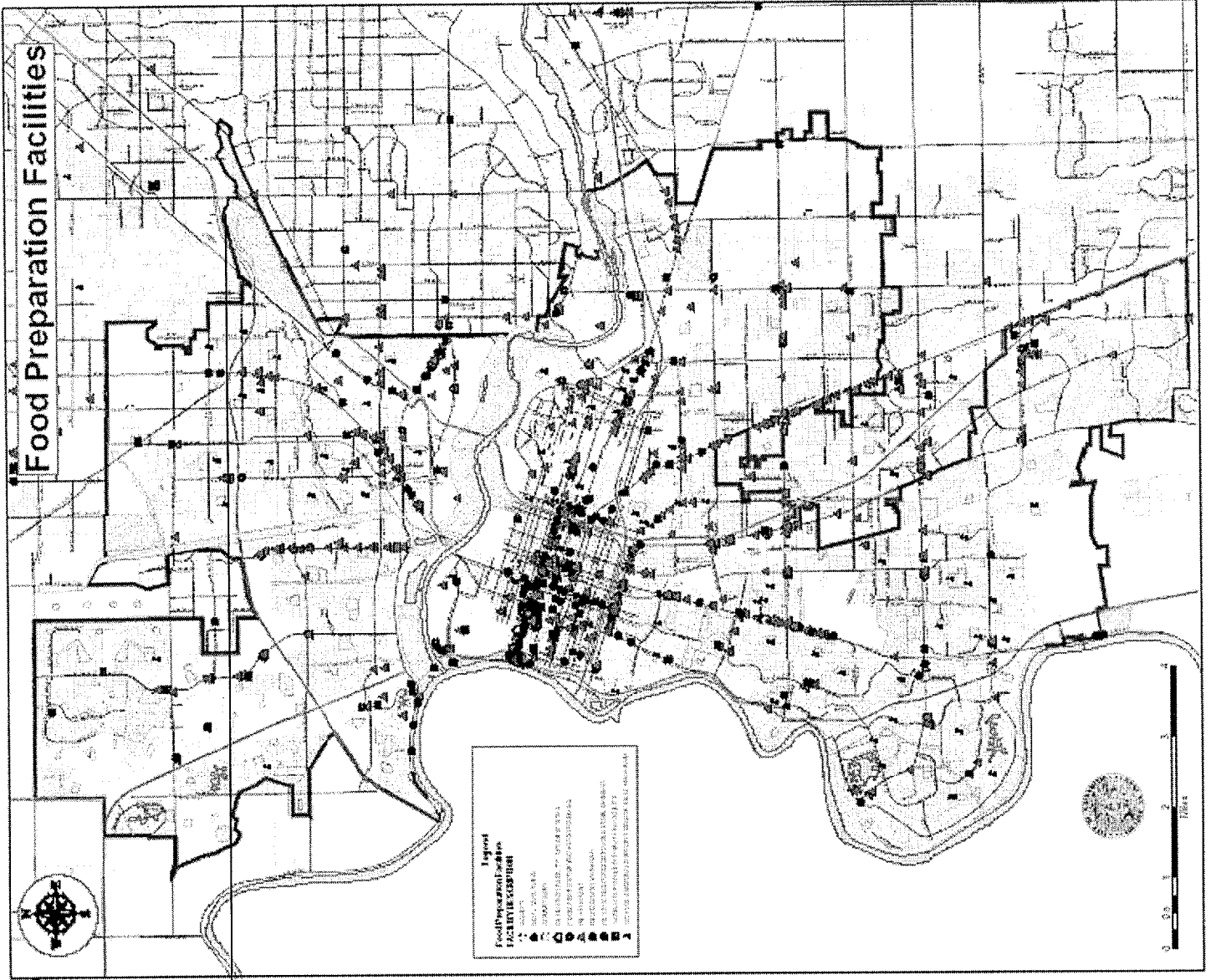
**(34% of the Commercial Food Waste  
Stream)**



Infrastructure Needed for  
Sacramento to Establish  
Business Food Waste  
Collection

**CITY MAP**

Density of Food  
Preparation  
Establishments

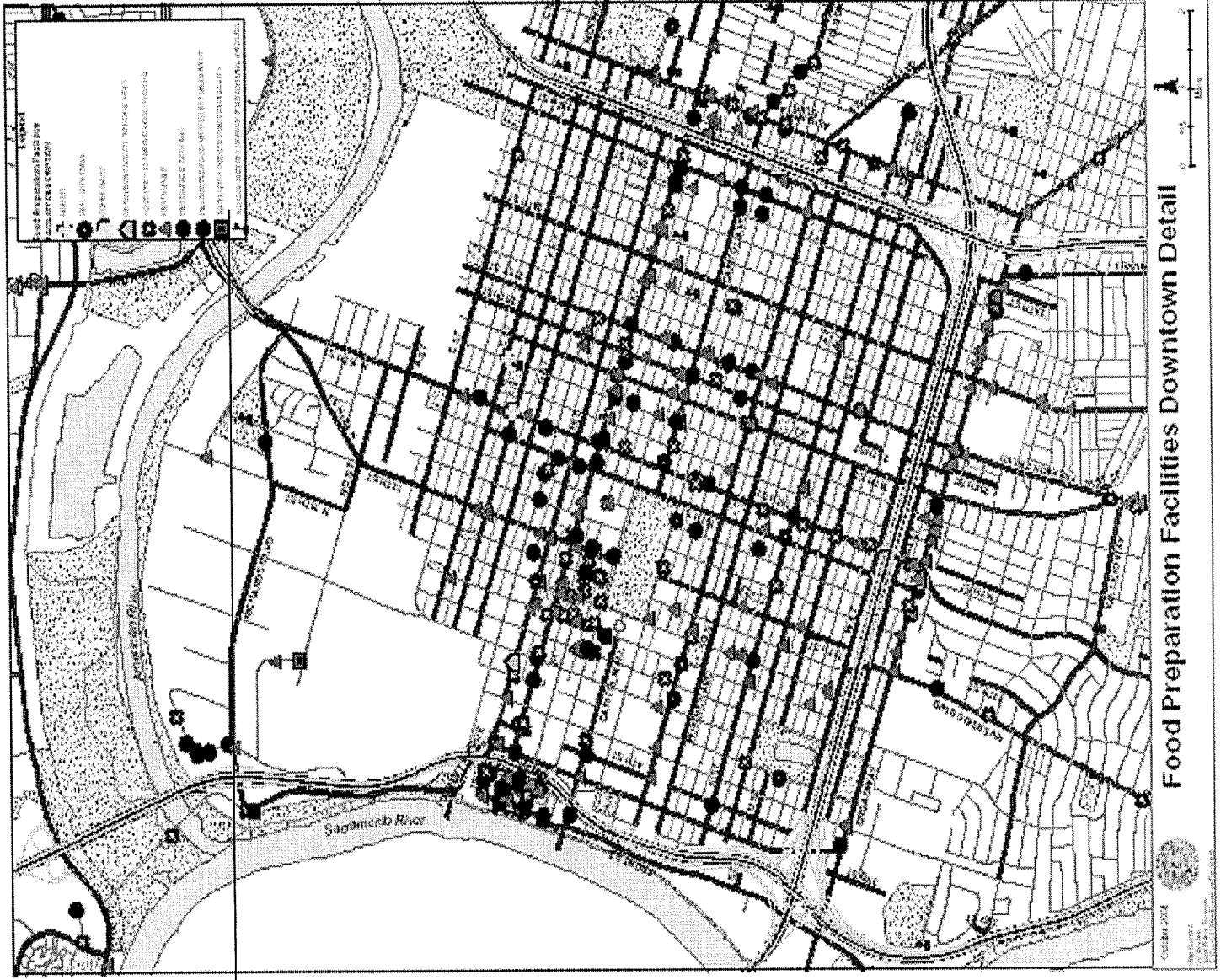




Infrastructure Needed for  
Sacramento to Establish  
Business Food Waste  
Collection

## DOWNTOWN AREA MAP

Density of Food  
Preparation  
Establishments





# **CITY OF SACRAMENTO**

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## **Proposed Commercial Collection Areas Based on Density, Volume, & Efficiency**

- + Downtown (149)**
  - + Midtown (153)**
  - + Old Sacramento (46)**
  - + Corridors of Density (1006)**
- (number of businesses)**



# **CITY OF SACRAMENTO**

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Estimated Cost if City Offered Program

## **2. PROJECTED COSTS**



# **CITY OF SACRAMENTO**

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Estimated Cost if City Offered Program

## **PRELIMINARY ANALYSIS OF CITY COSTS**

**\$560,000**

- \$180,000 Rear Load Truck Purchase (approx)
- \$ 20,000 Annual truck maintenance (approx)
- \$ 10,000 Annual fuel expense (approx)
- \$350,000 Annual Labor (Labor, benefits,  
administrative overhead)

**PLUS \$50,000 Annual Disposal Costs**



# **CITY OF SACRAMENTO**

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Major Challenges with Food Waste  
Collection in Sacramento

## **FEASIBILITY OF IMPLEMENTING COMMERCIAL FOOD WASTE RECYCLING IN SACRAMENTO**

- Business Density & Tonnage
- Projected Costs
- Processing Facilities



# **CITY OF SACRAMENTO**

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Major Challenges with Food Waste  
Collection in Sacramento

## **CURRENT CITY COMMERCIAL CUSTOMER WASTE VOLUME (tons per day)**

- 49 Tons per Day - Commercial
- 15 Tons per Day - Food Waste & Other Organics
- 5 Tons per Day - Downtown Area Food Waste & Other Organics



# **CITY OF SACRAMENTO**

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## **Major Challenges with Food Waste Collection in Sacramento**

- **Educate Business Owners & Employees To Prevent Food Waste**
- **Incentives for Businesses to Participate in Program**
- **Contract For Long-Term Processing**



# CITY OF SACRAMENTO

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## SUMMARY

- What is Occurring in California Related to Food Waste Collection
- Infrastructure Needed to Establish Food Waste Collection Program in Sacramento
- Estimated Cost for City to Operate Program
- Major Challenges Associated with Food Waste Collection in Sacramento



# **CITY OF SACRAMENTO**

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*Department of General Services*

## **QUESTIONS?**