



**Recycling Technical Assistance Project # 506**

**Borough of State College, Centre County**

**Educational Program Development for Restaurant  
Recycling and Composting Program**

*Sponsored by the Pennsylvania Department of Environmental Protection  
through the Pennsylvania State Association of Township Supervisors*

**FINAL REPORT**

September 2012

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# RECYCLING TECHNICAL ASSISTANCE PROJECT # 506

## BOROUGH OF STATE COLLEGE, CENTRE COUNTY

### *EDUCATIONAL PROGRAM DEVELOPMENT FOR RESTAURANT RECYCLING AND COMPOSTING PROGRAM*

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#### 1. STATEMENT OF THE PROBLEM

While the Borough of State College (Borough) has successfully piloted curbside food recycling, commercial establishments are not recycling at the level desired by the Borough in order to meet and exceed Pennsylvania's State recycling goal. The Borough of State College was recognized by the US EPA in April of 2012 for the Borough's curbside food recycling program. According to the EPA press release<sup>1</sup>, the Borough of State College is the "only town in the Commonwealth of Pennsylvania that is conducting curbside food waste collection for composting. The program began as a pilot and is slated to go borough-wide in 2013."

After the success of the curbside program, the Borough planned to use this technical assistance project to improve commercial recycling through a partnership with the Centre Region Council of Governments (CROG) and Centre County Recycling and Refuse Authority (CCRRA). A number of restaurants are located in State College which represents a significant opportunity to increase food waste diversion. A recycling and composting education program was needed at these food establishments to decrease the number of ordinance violations and increase participation.

#### 2. SUMMARY OF WORK COMPLETED

##### 2.1 GATHERING AND REVIEW OF BACKGROUND INFORMATION

The first task was to gather and review background information, including the parameters of the current commercial recycling program, solid waste and recycling ordinances, numbers and types of violations and diversion rates in the restaurant sector of the pilot program, as well as results from the surveys of pilot participants. MSW Consultants provided the Borough with case studies of some successful restaurant composting and recycling programs in other locations. Information on the food scrap composting program of the Four Seasons Hotel Dining Service in Philadelphia, and on the Darden Restaurants' food donation program is attached as part of Appendix A. Darden Restaurants include Olive Garden, Red Lobster, LongHorn Steakhouse, Warehouse, The Capital Grille, Bahama Breeze and Seasons 52.

During the project other relevant studies were also provided. In North Carolina, the Partnership for Bar and Restaurant Recycling provides a web site with concise, readable information on recycling.<sup>2</sup> They also provide a number of case studies of various restaurants and bars that are successfully

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<sup>1</sup><http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/3bbef1e78a1a6d0c852579e300558fddlopencdocu ment>

<sup>2</sup> <http://www.partnership4recycling.org/index.htm>

recycling in the state.<sup>3</sup> In addition to the case studies from North Carolina, case studies from Boston, St. Louis, Washington, DC and Metropolitan Washington (DC), all of which could be used individually in education packets, were provided to the Borough.

## **2.2 SURVEY OF FOOD ESTABLISHMENT OWNERS/MANAGERS**

With input from the Borough, MSW Consultants developed a one-page (front and back) survey of employers/managers, to assist in determining education and training needs. The survey form is attached as Appendix B. The results of the survey were to be used in development of educational materials. Although the surveys were mailed out with the refuse bills, with the options to return the paper survey with payment or to complete the survey online, only seven completed surveys were received from employers or managers of food establishments. The summary of responses is attached as Appendix C.

## **2.3 DEVELOPMENT OF EDUCATIONAL MATERIALS**

The survey responses provided insight to the issues associated with increasing food waste composting, but the survey response was too small to give a statistically broad picture of the needs of the employers. To supplement the survey, Department of Ordinance Enforcement and Public Health staff were asked for additional input. These staff members annually inspect the food establishments. It was decided that inspection staff will also do a verbal survey of each establishment inspected.

Using the responses from the few surveys that were returned and with input from Department of Ordinance Enforcement and Public Health staff, a set of educational materials was developed. It was decided that the educational materials would be given to the owner or manager of the food establishment after the inspection and verbal survey. In addition, educational materials would be available upon request and would be on the Borough web site.

The educational materials are attached as Appendix D. Included in the appendix are: a guide book script, which can be made into a “flip book” for the web site and can also be printed; examples of posters and brochures; and video scripts. These are described more fully in section 4.1 below.

## **2.4 DEVELOPMENT OF REPORTING MECHANISM AND POST-PROGRAM SURVEY**

With a slight modification, the food establishment survey, discussed in section 2.2 above, was adapted for the Department of Ordinance Enforcement and Public Health staff to use at the time of their annual inspection of each establishment. This survey will serve to monitor the progress of the educational effort. MSW Consultants assisted the Borough in developing a spreadsheet to be used in tracking the responses to the annual inspection and survey.

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<sup>3</sup> <http://www.p2pays.org/BannedMaterials/ABCcontainer/CSrestaurants.asp>

## **2.5 FINAL REPORT**

A report of the project was drafted and given to Borough of State College staff for review. After receiving input, the revised draft of the report was given to Borough staff for final review prior to completion of the report.

## **3. POSSIBLE SOLUTIONS**

Three primary solutions were identified during this project.

### **3.1 EDUCATION ON RECYCLING AND COMPOSTING**

It is important to provide owners and managers of food establishments with clear and concise educational materials. After MSW Consultants and Borough staff reviewed a great deal of information being used by other programs, some materials appropriate for State College were identified. This material is described more fully in section 4.1 below, and is provided in Appendix D.

The few survey respondents indicated they were not interested in video training materials. In the future, however, short videos could be used in addition to posters and brochures. A guide to recycling and composting can also be helpful, especially to those in the beginning stages of the program.

### **3.2 COLLECTING INFORMATION ON PROGRESS OF THE PROGRAM**

It was shown by the survey response that the recycling and composting project is not a high priority of the owners and managers. The Borough could continue to send surveys to be completed and returned by the owner or manager of each establishment. As an alternative, the annual inspection by Department of Ordinance Enforcement and Public Health staff could be used as an opportunity to verbally survey each establishment.

### **3.3 TRACKING AND REPORTING PROGRESS**

A brief but detailed survey, in addition to inspection results, is needed to monitor the amount and quality of recycling and composting taking place in each food establishment. However, it was shown that such a survey must be completed by the Borough, and that facility owners and managers will not typically respond. A survey to be performed verbally by Department of Ordinance Enforcement and Public Health staff, at the time of the annual inspection, is a way to ensure information is received from all of the food establishments. The information can then be entered into a spreadsheet and the results tabulated. This will help to see what is working and what does not appear to be working. The program can then be adjusted to bring about continued compliance and improvement.

## **4. RECOMMENDATIONS**

### **4.1 EDUCATION ON RECYCLING AND COMPOSTING**

It is recommended that education materials be concise and easily understandable. The Borough of State College has partnered with CRCOG to educate businesses through the “Recycle at Work” program. Information is disseminated through the Recycle at Work website<sup>4</sup> and through brochures and flyers mailed periodically to businesses. The current brochure is available online<sup>5</sup>, and is included in Appendix D. The Borough has also partnered with CCRRA, which provides online information on commercial recycling.<sup>6</sup>

In addition to the other educational programs offered by the Borough, an important way to disseminate information should be at the time of the annual inspection. Staff will have a “captive audience” after the inspection, which will motivate the owner or manager to improve their recycling and composting program. Educational materials should be tailored for the individual establishment category, i.e. fast food, casual dining, fine dining, coffee or ice cream shop. Some examples of educational materials include:

- ◆ **Guide to Recycling and Composting.** A draft script for a guide has been provided to the Borough to be revised as needed and is in Appendix D. This information can be used to make a “flip book” for the Borough web site and it can also be printed for distribution.
- ◆ **Posters.** MSW Consultants recommends the Borough design posters using the City of Boulder, Colorado/Zero Waste posters as a model. These posters are in Appendix D. A copy of a food waste poster from Los Angeles has also been provided in Appendix D as a reference.
- ◆ **Brochures.** Examples of brochures from the City of Los Angeles and US EPA have been provided in Appendix D, in the event that the Borough decides to design brochures in addition to the above-mentioned Guide to Recycling and Composting.
- ◆ **Case Studies.** Copies of relevant case studies with contact information are in Appendix A. These case studies were provided for use in assembling the appropriate, individual educational packets.
- ◆ **Videos.** Although there does not seem to be a desire on the part of owners and managers to have video training at this time, video training may be useful in the future. In addition, short videos can be used on the Borough web site or as Public Service Announcements on TV for education and recognition purposes. MSW Consultants has provided draft scripts for three short videos, which are a part of Appendix D:
  - How Composting Works (showing the steps from putting food waste in the container to the final compost product)

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<sup>4</sup> [www.crcog.net/recycleatwork](http://www.crcog.net/recycleatwork)

<sup>5</sup> <http://www.crcog.net/vertical/Sites/%7B6AD7E2DC-ECE4-41CD-B8E1-BAC6A6336348%7D/uploads/RecycleatWork.pdf>

<sup>6</sup> <http://centrecountyrecycles.org/recycling/commercial-recycling>



- How to Recycle Food Waste (a how-to for setting up a recycling and composting program)
  - Recycle/Reduce Waste – The Next Step (showcasing a business that has a successful composting/food donation program and how they do it)
- ◆ **Recognition.** It is recommended that the Borough provide certificates to businesses that are successful in recycling and composting and are reducing their waste generation. A business could post these certificates and, if they wish, can use the fact of receiving them in advertising their business. In addition, featuring the “best” recycler/composter of the year in the “Recycle/Reduce Waste – The Next Step” video can be used as recognition.

## **4.2 COLLECTING INFORMATION, TRACKING AND REPORTING PROGRESS OF THE PROGRAM**

It is recommended that the Borough:

- ◆ Conduct a verbal survey of each food establishment at the time of the annual inspection by Department of Health staff.
- ◆ Require that staff enter the information from the survey and the visual inspection of the recycling/food waste area into the spreadsheet provided by MSW Consultants. The information will be tabulated in the spreadsheet. This information can then be used by the Borough to report on progress, determine focus areas, and recognize those businesses doing a good job of reducing their waste generation through both recycling and food waste donation/composting.

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# **APPENDIX A**

## **CASE STUDIES: SUCCESSFUL RESTAURANT COMPOSTING AND RECYCLING PROGRAMS**

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# Fine Dining Returns to the Earth



*Guests and the environment both receive the royal treatment at the Four Seasons Hotel in Philadelphia, Pennsylvania. By focusing on behind the scenes operations, such as food waste management, the hotel is preserving environmental resources and saving money without compromising the guest experience.*

## A Cost-Effective, Closed-Loop Composting Partnership

A 2006 waste audit at the Four Seasons Hotel in Philadelphia indicated that its recycling program, which included paper, cardboard, bottles, and cans, only captured three to five percent of the hotel's waste by weight, due to the large quantity of high-weight food waste in the waste stream. To the Four Seasons, a five percent recycling rate was not acceptable. As Director of Engineering Marvin Dixon explains, "We strive for perfection." To increase the recovery rate, the hotel established a kitchen scraps recycling program with local composter Ned Foley of the farm Two Particular Acres. Here's how it works:

Black composting bins stand close to each kitchen work station, along with blue recycling bins and gray trash cans. The staff deposits all of the kitchen's organic discards—food scraps plus paper, cardboard, and biodegradable packaging, napkins, and dishware—into the composting bins. At the end of each day, the bins are loaded into a truck that Dixon drives 35 miles to Two Particular Acres on his way home from work. The truck runs on biodiesel made from Four Seasons' used cooking oils. Dixon drives the empty bins back to the hotel the next morning. In the program's first year, Four Seasons worked with two different contractors to transport the organic waste to Two Particular Acres. Due to rising fuel costs, both companies discontinued this hauling service. When Four Seasons couldn't find a replacement hauler, Dixon decided to transport the material to the farm to ensure that the program continued.

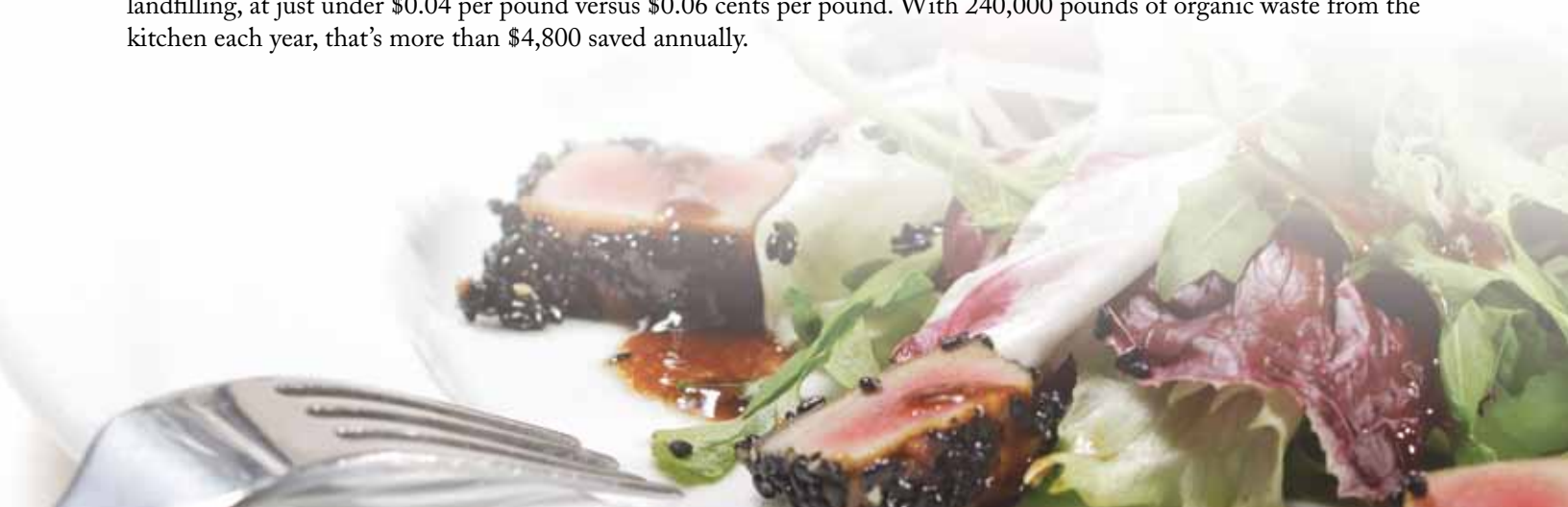
At Two Particular Acres, Farmer Foley uses the kitchen scraps from Four Seasons to make compost, which Four Seasons then purchases for its gardens and landscapes.

This symbiotic, closed-loop system fulfills the needs of both parties, and it's cost-effective too. Four Seasons rents each 150 lb kitchen composting bin for \$40 per month. The hotel pays Two Particular Acres \$35 per ton of organic waste in addition to a monthly service fee. In total, sending waste for composting is 30 percent cheaper for the hotel than landfilling, at just under \$0.04 per pound versus \$0.06 cents per pound. With 240,000 pounds of organic waste from the kitchen each year, that's more than \$4,800 saved annually.

## BENEFITS OF

### ► COMPOSTING

- By composting instead of landfilling its kitchen scraps, Four Seasons keeps 52 metric tons of carbon dioxide equivalent out of the atmosphere each year, an emissions reduction tantamount to decreasing the annual consumption of oil by 110 barrels.
- Composting saves the Four Seasons \$4,800 each year, a 30 percent savings over landfilling its food scraps.



## Carrying the Message

Dixon explains, “The kitchen is the nucleus of the [recycling] operation.” Program success hinges on the kitchen staff separating organic materials from the other waste and depositing organics into the compost bins. This is no easy task, as the kitchen operates 24 hours a day, seven days a week, with three supervisors managing three large teams on three shifts. Dixon identified three factors necessary for success.

### Hotel Management Support:

“The General Manager and Executive Committee have to be behind the program 110 percent” for employees at all levels to feel accountable for the success of the program, said Dixon. Composting is one piece of the hotel’s broad environmental strategy, and the hotel is very supportive of this effort.

### Personal Investment:

Employees learn about the environmental benefits of composting, fostering a personal investment which motivates them to be extra vigilant when separating waste.

### Education:

Program instructions are incorporated into new employee orientation, so that the staff views the program for what it is, an integral part of kitchen operations.

It took two months for the program to take hold in the kitchen, but after the initial effort, it became easy to monitor the bins and keep everyone on board. As Dixon explains, “People have to carry the message to make sure it happens; that’s the success right there.”

To encourage others to establish successful food scrap collections like that at Four Seasons, Farmer Foley is a primary trainer for EPA’s Campaign to Mid-Atlantic State Farmers to Promote Organic Material Composting, a free, peer-to-peer training program to help farmers start composting commercial kitchen discards. Other agencies such as the Pennsylvania DEP and the USDA are offering grants to educate farmers and to assist with the initial costs of purchasing composting equipment.

## You Can Help

Help your business start its own kitchen discards composting program.

- Visit [www.epa.gov/foodscraps](http://www.epa.gov/foodscraps)
- Search for composters in your area at [www.findacomposter.com](http://www.findacomposter.com)

## STEPS TO

### ▶ LESS WASTE

*In addition to composting organics from the kitchen, the Four Seasons Dining Services:*

- 🌀 *Carefully tracks food purchases to minimize surplus food (source reduction)*
- 🌀 *Purchases local ingredients whenever possible*
- 🌀 *Makes biodiesel from used cooking oils*
- 🌀 *Purchases only biodegradable disposables*
- 🌀 *Uses table-size, reusable condiment containers instead of serving-size disposables*
- 🌀 *Buys back the finished compost to use on its landscapes*

*In total, Four Seasons in Philadelphia has reduced its landfill waste by 23% (239 tons)*



U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
[www.epa.gov](http://www.epa.gov)

EPA530-F-09-024  
October 2009



# Our Food Donations

It's the ultimate paradox of an affluent society. Each year, some 14 billion pounds of food are sent to landfills in America. Meanwhile, nearly 37 million Americans – including 14 million children – are at risk of hunger.<sup>20</sup>

	Pounds Donated	Recipient Agencies
Olive Garden	3,438,264	671
Red Lobster	2,313,636	649
LongHorn Steakhouse	1,463,866	333
Warehouse	941,240	43
The Capital Grille	546,320	34
Bahama Breeze	35,322	31
Seasons 52	19,853	7
Total	8,758,500	1,150 <sup>19</sup>

Darden, like most restaurants, grappled for years with the problem of food waste. We particularly struggled with the uncomfortable dilemma of throwing away food that was perfectly good and safe to eat, yet, for a variety of reasons, couldn't be sold to our guests.

That's why we were so pleased to partner with the [Food Donation Connection](#), a national network that works with restaurants and other food service companies to distribute high-quality, prepared foods to hunger-relief organizations across the United States. A pilot program that began in 2003 grew into a company-wide effort the following year. Today, nearly all of our 1,800 restaurants participate in what is called the Darden Harvest food donation program.

## Our Food Donation Partners

Our food donation program wouldn't be so successful without the efforts of many different organizations. These include:

**Food Donation Connection.** This national organization acts as the liaison between the restaurants interested in donating leftover food and the social service agencies that provide meals for the homeless and people at risk of hunger.

**Feeding America.** As the largest hunger-relief agency in the country, Feeding America collects the majority of our prepared food donations and distributes the meals to charities in the communities where our restaurants are located.

**Social Services Agencies.** In the Orlando area alone, our food donations help to support more than 50 local charities, including food banks and residential treatment centers for adults struggling with addiction.

<sup>19</sup> Total is less than sum because many agencies pick up from more than one restaurant brand.

<sup>20</sup> Source: Feeding America

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In fiscal year 2009, Darden restaurants contributed 8.7 million pounds of cooked food to families in need across the United States. Our main distribution partner is Feeding America (formerly America's Second Harvest), the nation's largest hunger-relief organization. Representatives from Feeding America take the food from our restaurants to the charities that directly feed the needy. More than 1,200 charities benefit from our food donation program.

## How It Works

Here's how the program works: Each night, at the end of a dinner shift, our restaurants have leftover food that can't be used – such as full trays of thawed chicken breasts or steak tips. (We even sometimes donate lobsters.) Our rigorous food safety guidelines won't allow us to save food items like these for use on the following day. So instead, our kitchen crew cooks them just as they would for any paying guest, then packages and freezes them for weekly collections by the hunger-relief agencies. Our donations also often include cooked vegetables and sauces, like Olive Garden's popular Alfredo sauce.

Our restaurants are extremely good at forecasting what our guests will order. But we can't predict with 100% accuracy, and we don't want to run out of menu items, either. This means there are always some leftover ingredients at the end of each day. (Other leftover food includes take-out meals that were prepared, but never picked up by the diners who had ordered them. These, too, get frozen for the charities.)

For safety reasons, we never donate any raw foods – only items that have been thoroughly cooked.

## Program Benefits

The food donation program has so many benefits – social, environmental and economic – that it's hard to know where to begin. First, and most important, it lets us assist Americans who are in need of a good meal. Second, it reduces our waste stream by taking food that would otherwise have gone to landfills and diverting it to an extremely worthy cause. Third, the program saves our company money, thanks to generous federal tax deductions and reduced disposal costs (i.e., less food waste = less money for waste removal fees).

Our restaurant employees benefit from the program, too. Many of our team members routinely tell us that they feel good knowing that they are helping members of their communities.

We're proud of the work our employees do to make this program so successful. In fact, it's one of the most valuable things we do as a company. This program gives us yet another way to fulfill our core purpose – to nourish and delight everyone we serve.

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# **APPENDIX B**

## **FOOD ESTABLISHMENT SURVEY FORM**

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# STATE COLLEGE BOROUGH

## RESTAURANT RECYCLING AND COMPOSTING SURVEY

Dear Restaurant or Food Establishment Owner/Manager:

As you know, State College Borough is committed to increasing recycling and diversion of wastes from both the residential and commercial sector. At the current time, the Borough has identified food wastes generated at our local restaurants as a significant opportunity to increase diversion, as well as create an example of “closed loop” sustainable diversion practices. National case studies have shown that reducing food waste and participating in re-use, recycling and composting programs can save money, and certain cities have established restaurant districts whose fresh, local, sustainable food preparation practices enhance the dining experience for increasingly health and environmentally conscious customers.

However, the Borough recognizes that the success of any such effort will hinge on having a user-friendly food waste diversion program in place, supported by clear and consistent education and outreach. We would like to encourage and support such a sustainable program among State College restaurants. Please use this survey to let us know how we can best support you in the continual improvement of your recycling program. We ask that you fill out this survey online at <https://www.surveymonkey.com/s/food-establishment-survey> or return this completed survey with the payment of your refuse bill.

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### TELL US ABOUT YOUR RESTAURANT

- |  |  |  |
|--|--|--|
| 1. What type of food establishment is your business? | <input type="checkbox"/> Retail-prepackaged only | <input type="checkbox"/> Fast Food     |
|  | <input type="checkbox"/> Full service restaurant | <input type="checkbox"/> Casual dining |
| 2. What is the type of ownership of your business?   | <input type="checkbox"/> Independent             | <input type="checkbox"/> Franchise     |

---

### EXISTING RECYCLING AND DIVERSION PROGRAM SUMMARY

- |  |  |
|--|--|
| 3. Do you have a recycling program targeting <b>recyclable containers and/or recyclable paper and cardboard</b> for: | <input type="checkbox"/> Customers (“The front of the house”)? |
|  | <input type="checkbox"/> Staff (“The back of the house”)?      |
|  | <input type="checkbox"/> Neither                               |
| 4. Do you have a <b>food waste diversion program</b> at your restaurant?   | <input type="checkbox"/> Yes <input type="checkbox"/> No       |

#### 5. If you have any recycling/diversion program:

No      Yes      =>      If yes, what do you think is the contamination rate?

a. If you have a **back of the house** recycling program, do your employees receive training on how to recycle?

☐      ☐      \_\_\_\_\_

b. If you have a **front of the house** recycling program, do your customers have a good understanding of what to recycle?

☐      ☐      \_\_\_\_\_

c. How many hours are spent by staff in a typical week maintaining your recycling program, including time spent on employee training, in-house collection and maintenance?

Approximately \_\_\_\_\_ hours per week

d. How do you advertise or otherwise inform your customers about your recycling efforts? (check all that apply)

☐ website  
☐ information on menus  
☐ social media

☐ print advertising  
☐ posters/flyers  
☐ table tents

e. On a scale of 1 to 10, how clean are the recycling area(s) in your restaurant? \_\_\_\_\_

Could the cleanliness be improved?

☐ Yes

☐ No

What is the biggest barrier to improving cleanliness? \_\_\_\_\_

## PURCHASING PRACTICES

	Yes	No	Don't Know
6. Do you currently purchase compostable products?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If "Yes", do you separate the compostable products for diversion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you seek out suppliers of recyclable and compostable products?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you currently have a supplier for compostable paper, plastic, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Do you currently have a supplier for Recycled products?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are you willing to pay more for recyclable/compostable products?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## GENERAL

	Yes	No	Don't Know
11. Would your restaurant/food establishment compost food waste if given the option to do so with regular trash service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Do you think customers are likely to prefer and be more loyal to restaurants/food establishments that have a recycling program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## INTEREST IN RECYCLING/COMPOSTING AND TRAINING/EDUCATION

	Yes	No	Don't Know
13. Would you like to receive training on how to setup or improve a recycling or composting program for the <b>back of the house</b> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Would you like to receive training on how to setup or improve a recycling or composting program for the <b>front of the house</b> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If "Yes" for Q13 or Q14, what type of training materials are you interested in? (check all that apply)	<input type="checkbox"/> Posters <input type="checkbox"/> Booklets/Pamphlets		
	<input type="checkbox"/> Videos <input type="checkbox"/> Other _____		
15. Would you need training in a specific language, other than English?	<input type="checkbox"/> Spanish <input type="checkbox"/> Hmong <input type="checkbox"/> Vietnamese <input type="checkbox"/> Mandarin Chinese		
If yes, check all languages that apply:	<input type="checkbox"/> Other _____		

Do you have any additional comments? \_\_\_\_\_

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# **APPENDIX C**

## **FOOD ESTABLISHMENT SURVEY SUMMARY**

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## Food Establishment Survey

### 1. What type of food establishment is your business or organization?

Answer Options	Response Percent	Response Count
Retail-prepackaged only	20.0%	1
Fast Food	40.0%	2
Casual Dining	20.0%	1
Full service restaurant	20.0%	1
Other (please specify)		1
<i>answered question</i>		5
<i>skipped question</i>		2

Number	Response Date	Other (please specify)	Categories
1	Jul 25, 2012 6:24 PM	Not provided	

### 2. What is the type of ownership of your business?

Answer Options	Response Percent	Response Count
Independent	83.3%	5
Franchise	16.7%	1
Other (please specify)		1
<i>answered question</i>		6
<i>skipped question</i>		1

Number	Response Date	Other (please specify)	Categories
1	Aug 23, 2012 1:33 PM	Take out	

### 3. If you have a back of the house recycling program, do your employees receive training on how to recycle?

Answer Options	Response Percent	Response Count
No	50.0%	2
Yes	50.0%	2
What percentage of materials is properly recycled?		1
<i>answered question</i>		4
<i>skipped question</i>		3

Number	Response Date	What percentage of materials is properly recycled?	Categories
1	Aug 23, 2012 1:33 PM	Only have 1-3 items/week, take to recycle bins, myself	

4. If you have a front of the house recycling program, do your customers have a good understanding of what to recycle?

Answer Options	Response Percent	Response Count
No	66.7%	2
Yes	33.3%	1
What percentage of materials is properly recycled?		0
<i>answered question</i>		3
<i>skipped question</i>		4

5. Approximately how many hours are spent by staff, in a typical week, maintaining your recycling program, including time spent on employee training, in-house collection and maintenance?

Answer Options	Response Count
	4
<i>answered question</i>	4
<i>skipped question</i>	3

Number	Response Date	Approximately how many hours are spent by staff, in a typical week...?	Categories
1	Aug 23, 2012 1:33 PM	0.5 hours	
2	Jul 25, 2012 6:29 PM	0.25	
3	Jul 25, 2012 6:27 PM	2	
4	Jul 25, 2012 6:24 PM	5	

6. How do you advertise or otherwise inform your customers about your recycling efforts? (check all that apply)

Answer Options	Response Percent	Response Count
website	0.0%	0
information on menus	0.0%	0
social media	0.0%	0
print advertising	0.0%	0
poster/flyers	0.0%	0
table tents	0.0%	0
Other (please specify)		0
<i>answered question</i>		0
<i>skipped question</i>		7

### 7. How clean are the recycling area(s) in your restaurant?

Answer Options	Not Clean at All	Somewhat Not Clean	Somewhat Clean	Very Clean	Rating Average	Response Count
On a scale of 1 to 10:	0	0	0	0	0.00	0
<i>answered question</i>						0
<i>skipped question</i>						7

### 8. Could cleanliness be improved?

Answer Options	Response Percent	Response Count
No	25.0%	1
Yes	75.0%	3
What is the biggest barrier to improving cleanliness?		3
<i>answered question</i>		4
<i>skipped question</i>		3

Number	Response Date	What is the biggest barrier to improving cleanliness?	Categories
1	Jul 25, 2012 6:29 PM	There's always room for improvement!	
2	Jul 25, 2012 6:27 PM	Other accounts use the same refuse bins	
3	Jul 25, 2012 6:24 PM	Keeping bins clean and broken glass from being spilled on the ground	

### 9. What would make recycling easier for your food establishment?

Answer Options			Response Count
			2
answered question			2
skipped question			5
Number	Response Date	What would make recycling easier for your food establishment?	Categories
1	Jul 25, 2012 6:29 PM	Consistent containers.	
2	Jul 25, 2012 6:24 PM	More frequent pickups during busy times. Ability to recycle plastic cups. Clean bins periodically.	



**10. Please answer the following questions on your purchasing practices:**

Answer Options	Yes	No	I do not know	Response Count
Do you currently purchase compostable products?	33.3% (2)	50.0% (3)	16.7% (1)	6
If "Yes", do you separate the compostable products for diversion?	50.0% (1)	50.0% (1)	0.0% (0)	2
Do you seek out suppliers of recyclable and compostable products?	50.0% (3)	33.3% (2)	16.7% (1)	6
Do you currently have a supplier for compostable paper, plastic, etc?	33.3% (2)	50.0% (3)	16.7% (1)	6
Do you currently have a supplier for recycled products?	66.7% (4)	16.7% (1)	16.7% (1)	6
Are you willing to pay more for recyclable/compostable products?	50.0% (3)	50.0% (3)	0.0% (0)	6
<i>answered question</i>				7
<i>skipped question</i>				0

**11. Please answer the following general questions on behavior choices:**

Answer Options	Yes	No	I do not know	Response Count
Would your restaurant/food establishment compost food waste if given the option to do so with regular trash service?	28.6% (2)	42.9% (3)	28.6% (2)	7
Do you think customers are likely to prefer and be more loyal to restaurants/food establishments that have a recycling program?	14.3% (1)	42.9% (3)	42.9% (3)	7
Do you have any comments on behavior choices?				1
<i>answered question</i>				7
<i>skipped question</i>				0

Number	Response Date	Do you have any comments on behavior choices?	Categories
1	Aug 23, 2012 1:33 PM	We don't have enough food waste to do this.	

**12. Please answer the following questions regarding your interest in recycling/composting and training/education:**

Answer Options	Yes	No	I do not know	Response Count
Would you like to receive training on how to setup or improve a recycling or composting program for the back of the house?	33.3% (2)	66.7% (4)	0.0% (0)	6
Would you like to receive training on how to setup or improve a recycling or composting program for the front of the house?	16.7% (1)	66.7% (4)	16.7% (1)	6
What kind of trainings are you most interested in? (e.g. food waste diversion programs, recycling best practices, cleanliness best practices)				0
<i>answered question</i>				6
<i>skipped question</i>				1

**13. If "Yes", what type of training materials are you interested in? (check all that apply)**

Answer Options	Response Percent	Response Count
Posters	100.0%	2
Videos	0.0%	0
Booklets/Pamphlets	50.0%	1
Other (please specify)		0
<i>answered question</i>		2
<i>skipped question</i>		5

**14. Would you need training in a specific language, other than English?**

Answer Options	Response Percent	Response Count
Spanish	0.0%	0
Vietnamese	0.0%	0
Hmong	0.0%	0
Mandarin Chinese	0.0%	0
Other (please specify)		0
<i>answered question</i>		0
<i>skipped question</i>		7

15. Do you have any additional questions or comments?

Answer Options	Response Count
	3
<i>answered question</i>	3
<i>skipped question</i>	4

Number	Response Date	Do you have any additional questions or comments?	Categories
1	Jul 25, 2012 6:29 PM	Has a food waste diversion program.	
2	Jul 25, 2012 6:27 PM	Had a food waste diversion program until the vendor stopped.	
3	Jul 25, 2012 6:24 PM	Would pay more for recyclable/compostable products if not too big of a difference	

---

## **APPENDIX D**

### **EDUCATIONAL MATERIALS DEVELOPED**

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## Guide to Recycling and Composting - for brochure/flip book

### Why -

- According to US EPA:
  - In the United States we waste almost half the food produced.
  - Almost 14 percent of all the municipal solid waste generated in the United States is food waste.
  - Of that food waste, less than 3 percent is recovered.
  - Nationally, food waste losses cost the commercial or retail sector, such as restaurants and convenience stores, up to \$30-40 billion per year.

Source: [www.epa.gov/foodrecovery](http://www.epa.gov/foodrecovery)

- Pennsylvania Act 101 mandates recycling for many communities.
- State College Borough Ordinance 1256 requires all residents and businesses to recycle.

### How –

#### Back of the House: Recycling/Composting

- Recycle food and beverage containers, paper and cardboard boxes.
- Compost:
  - vegetable and fruit trimmings
  - meats, fish and poultry scraps and bones
  - plate scrapings
  - egg shells
  - coffee grounds
  - paper towels and napkins
  - food-soiled paper and pizza delivery boxes

#### Front of the House: Reduce/Reuse

- Use serving containers in the appropriate sizes without excess packaging.
- If applicable, check to be sure discarded trays and flatware are removed from dining room trash before taking it out.
- Minimize packaging of take-out foods. Use less packaging for eat-in foods than for food being taken out, or use none at all.
- Offer customers a discount if they bring their own mugs, take-out containers or bags.

#### Front of the House: Compost/Recycle

- If plate scrapings, or postconsumer scraps, are collected, teach customers proper separation of food scraps.
- If you serve beverages in cans or bottles, place a recycling bin in the dining area for your customers' empty beverage containers.

#### Office: Compost/Recycle

- Order supplies with minimal packaging and ensure that what packaging is required is recycled and recyclable or compostable.
- Recycle all of the following fibers: corrugated cardboard boxes, mixed paper (junk mail, scrap and colored paper), newspaper, and office paper (white ledger, computer and copier paper)
- Set up appropriate green waste and composting service with your garbage company. Make composting part of the contract with your landscape service.

#### Avoiding odor, pests and health and safety concerns

- Collect waste for composting in a timely manner.
- Educate the staff responsible for collection of food waste.
  - Provide a routine, frequent schedule for the separation of food scraps.
  - Teach proper separation of food scraps.
- Empty collection containers regularly. Periodically rinse them with soap and hot water.
- To minimize pest problems:
  - Keep bins closed.
  - Use appropriate, leak-proof collection containers.
  - Emptying these containers into larger onsite collection bins.
  - Be sure that hauler collects the food waste on a frequent schedule.

Contact information:

[List contact information, names and phone numbers]

# Why Recycle?

## It's The Law

Pennsylvania Act 101 mandates recycling for many communities. State College Borough and the Townships of Benner, College, Ferguson, Harris and Patton have local ordinances in place that require businesses to recycle. For more information about your local ordinance, please visit the Recycle at Work website, [www.crcog.net/RecycleatWork](http://www.crcog.net/RecycleatWork), or contact your municipality.

## Economics

Recycling helps to save money on overall disposal costs and produces jobs by re-manufacturing new products from our waste. It costs \$70/ton to dispose of trash and \$5/ton to dispose of recyclables in Centre County.

## Conservation

Recycling conserves natural resources like aluminum, steel, trees and oil. It also reduces the amount of energy needed to produce new products and the amount of pollution that enters the environment.



**Did you know?** On a per ton basis, recycled waste creates 10 times more jobs than land-filled waste in the municipal waste sector alone and 25 jobs in the manufacturing of recycled goods.

\* Institute for Local Self-Reliance, Washington, DC, 1997

[www.crcog.net/RecycleatWork](http://www.crcog.net/RecycleatWork)

*What do I do with...*

## **Electronics?**

Beginning January 3, 2012, "Covered Devices" will no longer be accepted at the Centre County Recycling and Refuse Authority (CCRRA) as trash. This means computers and TVs must be recycled. See website for many drop off locations.

## **Fluorescent Light Bulbs?**

Compact fluorescent light bulbs (CFLs) can be recycled at Home Depot, Lowes, and the CCRRA. See website for recycling information on fluorescent tubes.

## **Contact for more information:**

### **Council of Governments Regional Refuse & Recycling**



2643 Gateway Drive, Suite 3  
State College PA 16801  
Phone: (814) 234-7198  
Email: [recycler@crcog.net](mailto:recycler@crcog.net)  
[www.crcog.net/refuse](http://www.crcog.net/refuse)

### **Centre County Recycling & Refuse Authority (CCRRA)**



253 Transfer Road  
Bellefonte PA 16823  
Phone: (814) 238-7005  
Email: [wasted5@uplink.net](mailto:wasted5@uplink.net)  
[www.centrecountyrecycles.com](http://www.centrecountyrecycles.com)

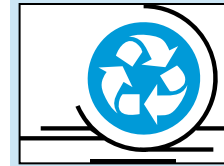
### **State College Borough Public Works**



243 South Allen Street  
State College PA 16801  
Phone: (814) 234-7135  
Email: [publicworksdept@statecollegepa.us](mailto:publicworksdept@statecollegepa.us)  
[www.statecollegepa.us](http://www.statecollegepa.us)



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# Recycle at Work

Three easy steps to comply with  
mandatory recycling.

**INCREASE RECYCLING AND  
DECREASE  
REFUSE  
COSTS**







### Step 1 Identify materials to be recycled

- Mixed Paper
- Plastic Bottles
- Metal Cans
- Glass
- Corrugated Cardboard

*See recycling guide for more detail*

### Step 2 Determine appropriate collection service.

Contact your hauler to start recycling and they can assist you in determining the best service for your business.

**Blue Toter:** Most businesses generate enough recyclables to have blue toter collection.

**Red Bin Curbside:** Small businesses that only generate 2-3 red bins worth of variable recyclables a week may choose this service.

**Drop off:** Smaller businesses who are committed to recycling and located near a drop off location may find this service most appropriate.







*For drop off locations, see  
[www.centrecountyrecycles.com/Recycle/recycle.html](http://www.centrecountyrecycles.com/Recycle/recycle.html)*

### Step 3 Design your recycling program.

- Appoint a capable and enthusiastic coordinator.
- Identify the types and number of containers needed and where you should place them.
- Design a system for collecting recyclables and moving them to the central outside location for hauling.
- Educate employees on your new program.
- Review your trash volume and costs.

### *Keep Your Recycling & Refuse Area Clean*

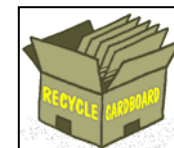
1. No broken glass, garbage, grease etc. may be present on ground.
2. Need adequate containers; no overflow.
3. Make sure there is clear, easy access to all toters.
4. Keep motor vehicles away from toter area.

 <b>RECYCLING GUIDE</b> 		
<b>GLASS</b> 	YES	• Clear, brown and green glass bottles or jars sorted into separate containers by color
	NO	• Window panes or mirrors • Light bulbs • Drinking glasses or ceramics
<b>PLASTIC</b> 	YES	• Narrow neck plastic bottles, jugs and jars
	NO	• Tubs or trays • Buckets • Plastic cups
<b>METAL</b> 	YES	• Aerosol, steel and aluminum cans • Aluminum foil
	NO	• Scrap metal • Pots and pans
<b>PAPER</b> 	YES	• Mixed office paper • Paperboard (eg. cereal boxes) • Magazines, catalogs, phone books and newspapers
	NO	• Dirty or wet paper • Hardback books

### *How to Prepare Recyclables*

1. All bottles, jars and cans must be rinsed and clean.
2. Remove all tops and place in the appropriate bin.
3. Do not break or crush glass bottles and jars.
4. Labels may stay on all products.
5. Place metal lids inside cans.

### ***CORRUGATED CARDBOARD***



- Flatten Boxes
- No paperboard food boxes
- Keep Dry
- No waxed, oily, or dirty boxes
- No pizza boxes
- No Styrofoam® packing material

### **Dumpster Provided by Hauler:**

Many businesses generate enough cardboard to require a dumpster from their local hauler. Remember, it costs \$70/ton to dispose of cardboard as trash, but only \$5/ton to recycle cardboard.



**OR...**

### **Curbside collection by Hauler:**

Small businesses that have red bin curbside collection may include flattened cardboard in their weekly collection.



**OR...**

### **Drop-Off Locations:**

Businesses that generate less cardboard than a 2 yard dumpster every two weeks may take their cardboard to a drop box location.



# COMPOST This

It will turn into soil.



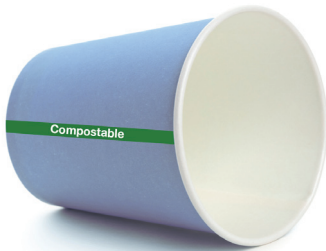
## Food & Plants

Food scraps, plants



## Coffee & Tea

Coffee grounds and filters, tea bags



## Food Service Items

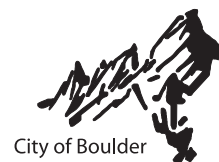
**Compostable** cups, plates, utensils



## Paper Products

Napkins, paper towels, tissues, wet cardboard

⊘ Please, NO Styrofoam, plastic or foil



# RECYCLE This

It will become new material.



## Plastic #s 1-7

Plastic bottles, jars, tubs, containers, jugs



## Cans

Aluminium cans and foil, metal lids, pie pans



## Glass

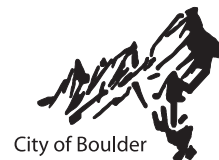
Glass bottles and jars



## Cardboard

Cardboard boxes, inserts, food containers

⊘ Please, NO Styrofoam or plastic bags



# TRASH This

It will go to a landfill.



## Wrappers

Plastic wraps, candy wrappers



## Some Cups

Non-compostable beverage cups



## Styrofoam

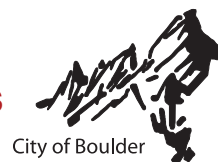
Styrofoam containers and cups



## Plastic and Chip Bags

Including sandwich baggies

⊘ Please, NO compostables or recyclables



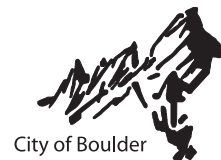
# COMPOST This

It will turn into soil.

## Paper Products | Paper towels and tissues



⊘ Please, NO Styrofoam, plastic or foil





# Food Waste Collection

## All Food

fruits, vegetables, meat, poultry, seafood, shellfish, bones, rice, beans, pasta, bread, cheese and eggshells.

## Toda Comida

frutas, verduras, carnes, mariscos, pescados, huesos, arroz, frijoles, pastas, pan, quesos, cáscaras de huevo.

## Food-soiled Paper

waxed cardboard, napkins, paper towels, paper plates, paper milk cartons, tea bags, coffee grounds/filters, wooden crates, sawdust.

## Papel Manchado por Comida

cartón encerado, servilletas, platos y toallas de papel, filtros y residuos de café, recipientes de cartón para leche, bolsas de té, cajas de madera, aserrín.

## Plants

floral trimmings, tree trimmings, leaves, grass, brush, weeds.

## Plantas

recortes de flores y árboles, hojas, césped cortado, malezas, hierbas.

## No!

plastic bags/wrap/straws  
Styrofoam  
bottles and cans  
aluminum foil  
liquids  
hazardous waste

## ¡No!

bolsas/envolturas/pajitas de plástico  
espuma de poliestireno  
botellas y latas  
papel de aluminio  
líquidos  
desechos peligrosos



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## COMPOST FROM FOOD WASTE

Composting is a natural process where organic matter breaks down. Organic matter collected from participating restaurants is taken to a state-permitted facility where it is mixed with green waste to produce nutrient-rich compost.

The complete composting process takes approximately three months.

This nutritious soil conditioner is mixed with existing soil, where it replenishes the earth and stimulates healthy plant growth, which in turn produces healthier crops.

## ADDITIONAL RECYCLING OPTIONS

In addition to recycling organic waste, restaurants can also reduce their waste going to the landfill by establishing recycling programs for glass, metals and plastics.

For program set-up and technical assistance, please contact the Solid Resources Citywide Recycling Division at (213) 485-2260 or visit the city's website at [www.lacity.org/san](http://www.lacity.org/san).

City of Los Angeles  
Department of Public Works • Bureau of Sanitation  
Solid Resources Citywide Recycling Division  
1149 South Broadway Street, 10<sup>th</sup> Floor  
Los Angeles, CA 90015  
Phone: (213) 485-2260 • Fax: (213) 485-3671  
E-mail: [scrdr@lacity.org](mailto:scrdr@lacity.org) • [www.lacity.org/san](http://www.lacity.org/san)

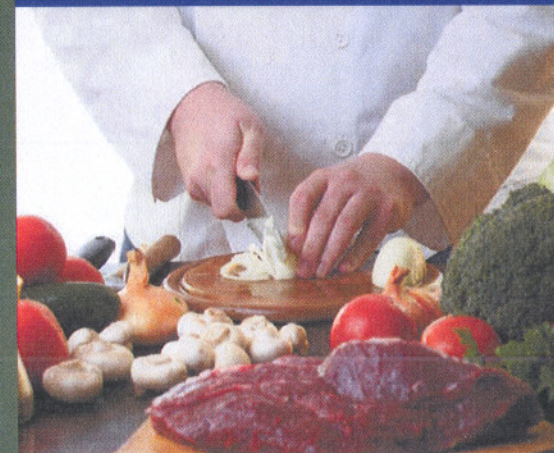


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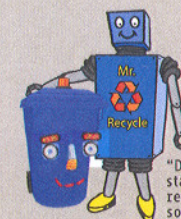
City of Los Angeles  
Department of Public Works  
Bureau of Sanitation



# Restaurant Food Waste Recycling

Solid Resources  
Citywide Recycling  
Division

Reduce, Reuse,  
Recycle, and  
Buy Recycled



"Don't just stand there; recycle something!"  
-Mr. Recycle





## RESTAURANT WASTE

The waste from restaurants and other food service establishments is more than 76% organic and can be recycled. A single restaurant, on an average, disposes more than 50 tons of organic waste every year. This material, if kept out of the waste stream, can be recycled into an earth-friendly product such as compost. Each participating restaurant can keep nearly five refuse truck loads of waste out of local landfills every year.

## THE PROGRAM

Participating restaurants place food and other organic waste in special marked bins located throughout the kitchen and food preparation areas. The "Food Waste Only" bins typically replace an existing trash bin so as not to take up valuable kitchen space. The City's contracted hauler picks up the food/organic waste as often as necessary, often six days a week.

Participating restaurants must maintain a trash service as well, often at a drastically reduced level of service.

## WHY PARTICIPATE?

- Cost savings by better management of disposal costs.
- Better for the environment – divert waste from landfills and turns organic waste into useful by-products, such as soil amendments and fertilizers.
- Assists the City of Los Angeles to meet the State's waste diversion requirements.
- Restaurants can recycle more than 76% of their waste by joining this program.
- Free assistance is offered to make your program a success.
- Free set-up of food waste recycling program to fit your specific needs (bins for inside and outside use, staff training, posters, training publications, newsletters, follow-ups and more).
- Help meet the City of Los Angeles' Fats, Oils and Grease (FOG) Ordinance requirements to implement best management practices for food waste handling.

## ACCEPTABLE MATERIALS

All food waste and trimmings including:

- fruits and vegetables
- meats and bones, sea food, poultry
- dairy products
- bread and grains
- coffee grounds
- plant trimmings
- soiled paper products, milk cartons and waxed cardboard.

Restaurants are encouraged to use bio-degradable food service containers that can be recycled with their food waste recycling.

## NON-ACCEPTABLE MATERIALS

- plastic products
- glass products
- metal products
- Styrofoam®
- non-biodegradable materials



# Resources for More Information



### General Information

- EPA Organic Materials web page: [www.epa.gov/foodrecovery](http://www.epa.gov/foodrecovery)
- EPA Waste Information Where You Live: <http://www.epa.gov/waste/conservematerialsorganics/live.htm>
- EPA and USDA, Waste Not/Want Not: A Guide for Feeding the Hungry and Reducing Solid Waste Through Food Recovery: [www.epa.gov/wastes/conservematerialsorganics/pubs/wastenot.htm](http://www.epa.gov/wastes/conservematerialsorganics/pubs/wastenot.htm)
- Cooperative State Research, Education, and Extension Service: [www.csrees.usda.gov/](http://www.csrees.usda.gov/)

### Food Donation


- Bill Emerson Good Samaritan Food Donation Act: [www.usda.gov/news/pubs/gleaning/appc.htm](http://www.usda.gov/news/pubs/gleaning/appc.htm)
- Food Donation: Feed People-Not Landfills: <http://www.epa.gov/wastes/conservematerialsorganics/food/fd-donate.htm>

### Animal Feed

- USDA's list of state veterinarians: [www.aphis.usda.gov/import\\_export/downloads/vsavic.pdf](http://www.aphis.usda.gov/import_export/downloads/vsavic.pdf)
- U.S. Centers for Disease Control and Prevention's directory of state health departments: [www.cdc.gov/mmwr/international/relres.html](http://www.cdc.gov/mmwr/international/relres.html)

### Composting

- EPA Composting Web site: [www.epa.gov/composting](http://www.epa.gov/composting)
- U.S. Composting Council: [www.compostingcouncil.org](http://www.compostingcouncil.org)
- Massachusetts Department of Environmental Protection, Supermarket Composting Handbook: [www.mass.gov/dep/recycle/reduce/smhandbk.pdf](http://www.mass.gov/dep/recycle/reduce/smhandbk.pdf)



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Environmental Protection  
Agency

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(5306P)  
Washington, DC 20460  
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Penalty for Private Use \$300  
EPA530-F-12-002  
February 2012  
[www.epa.gov/foodrecovery](http://www.epa.gov/foodrecovery)

# Putting Surplus Food To Good Use

## A How-to Guide for Food Service Providers

Every day, food service providers, such as supermarkets, hospitals, universities, restaurants, and food preparation companies, make decisions about what to do with surplus or leftover food. This surplus food, also known as food scraps, food waste, or organic materials, includes all prepared foods, produce, bakery and dairy items, and meat. There are many ways food service providers can improve the environment and provide benefits to communities by reducing, reusing, and recycling uneaten or unused food rather than throwing it away. This guide helps food service providers start a food waste reduction and recovery program at their facilities.

### To Recover or Not to Recover: Why Do It?

Separating and managing your excess food can result in both economic and environmental benefits.

#### Economics: It Pays to Reduce and Recover Food Resources

Reducing and recovering excess food may save you money by:

- Decreasing disposal fees. Food banks and renderers often provide free pick-ups for excess food, and composting fees can be less than landfill/incineration tipping fees.
- Decreasing sewer treatment and electricity costs since food waste is not going down the drain.
- Decreasing purchasing costs because you are only buying what is needed.
- Increasing tax deductions for food donations to charities.
- Increasing revenue from selling compost made from food scraps.

#### Environment: Saving Resources And Reducing Waste

Putting surplus food to good use benefits the environment by:

- Creating a nutrient-rich soil amendment when composted, which improves overall soil health.
- Eliminating potential dumpster issues such as odors, pests, and fires.
- Conserving landfill space and decreasing methane and other greenhouse gas emissions from landfills.
- Decreasing the volume of waste managed at incinerators, which reduces air emissions and the volume of incinerator ash that needs to be landfilled.


Source  
Reduction

Feed  
People

Feed  
Animals

Industrial  
Uses

Composting

 Recycled/Recyclable—Printed with Vegetable Oil Based Inks on 100% Postconsumer, Process Chlorine Free Recycled Paper

### Shopping for Change

The Massachusetts Department of Environmental Protection and the Massachusetts Food Association partnered to increase organics recycling at supermarkets in their state. These two organizations established a voluntary supermarket recycling certification program to promote recycling and re-using food waste and other materials. Participating supermarkets save money and receive both positive recognition and waste load inspection regulatory relief. In August 2005, 62 supermarkets, nine haulers, and six composting facilities achieved a 60 to 75 percent recycling rate of food scraps and other organics. The supermarkets reportedly saved \$3,000 to \$20,000 annually per store by simply diverting organics!



### A Lesson in Successful Partnerships

The San Francisco Recycling Program (SFRP) used stakeholder involvement to create a successful composting program at local schools. SFRP and Sunset Scavenger, a division of Norcal Waste Systems, met with interested teachers, principals, subcontractors, and custodial staff to discuss roles and responsibilities during the different steps in the composting process. Stakeholder meetings allowed SFRP to identify and solve potential problems and foster a sense of responsibility needed to sustain its programs. SFRP's stakeholder involvement also led to student and parent interest in food waste recovery. In 2000, the four public elementary schools and one private high school participating in the program diverted nearly 200 pounds of food scraps daily. The City of San Francisco uses its successful partnership approach to expand its food diversion program to haulers, composting facilities, dairy farmers, local colleges, and other organizations.

# Reducing and Recovering Surplus Food

Surplus food can be beneficially used in a variety of ways. The food recovery hierarchy prioritizes methods of reducing food waste.

**Assess your**

**food waste:** Take a quick look at the food you are throwing away and identify potential food recovery opportunities to decrease the amount you generate.

**Conduct a food waste audit:** For more detailed information, track and collect data on the types and amounts of each food waste item you are generating. Collecting these data will help you determine if some of your food waste can be reduced by ordering or producing less, how much could be sent to food banks or shelters, and how much could be recycled through animal feeding, rendering, or composting.

**Plan for costs:** There are costs related to collecting, transporting, and composting food scraps. Talk to neighboring organizations about also instituting food waste collection at their facilities to create a cost-effective route for your hauler. You also might be able to generate revenue by selling compost created from your food waste.

**Start the program:** Talk to national waste organizations, haulers, town planners, recycling coordinators, and even the mayor or town manager to get support and assistance for your food recovery program. Employee training is also vital to the success of a food waste recovery program. You might want to consider an incentive program for employee participation.

**Decide what food recovery option works best for you:** Use the information gathered from your waste assessment and audit to decide which food recovery option is best for your organization. The quality of your surplus food and your estimated generation rate will help you consider how to divert your food waste. To learn about waste disposal options and find haulers in your area, visit your state or county environmental department's Web site. You can also ask your current recycling or waste hauler about hauling your food waste to a recovery facility.

For information on working with local waste management companies to improve your recycling rates and cost savings, visit <http://www.epa.gov/waste/conserve/materials/organics/food/tools/>.

**Source Reduction — Reduce the volume of food waste generated**

**Feed Hungry People — Donate extra food to food banks, soup kitchens, and shelters**

**Feed Animals — Divert food scraps to animal feed**

**Industrial Uses — Provide waste oils for rendering and fuel conversion; and food scraps for digestion to recover energy**

**Composting — Create a nutrient-rich soil amendment**

**Landfill/Incineration — Last resort for disposal**

**Source Reduction:**

Use your waste audit to identify ways to decrease the amount of food waste you generate.

Are there any trends in the types and amounts of food waste you produce? If so, consider changing your business operation to buy only what you use.


**Feed People:** You can donate unsold or excess food products that meet quality and safety standards to food banks. Many national and local food recovery programs offer free pickups and containers. The Bill Emerson Good Samaritan Food Donation Act (Public Law 104-210) protects food donors from legal liability. The text for this act is available through the U.S. Department of Agriculture's website at: [www.usda.gov/news/pubs/gleaning/appc.htm](http://www.usda.gov/news/pubs/gleaning/appc.htm).


**Feed Animals:** Determine if local farmers or zoos use food scraps as animal feed. There are laws and regulations protecting animals from contracting diseases through consumption of food scraps. Contact your county agricultural extension office, your state veterinarian, or your county health department to find out about specific state regulations and contact information for licensed farmers. You also might find companies that convert food scraps into animal food products.


**Industrial Uses/Rendering:** Fat, oil, and grease can be rendered into a raw material to make biodiesel, soaps and cosmetics. Anaerobic digestion of food scraps and waste oils produces biogas that can generate heat and electricity, fiber that can be used as a nutrient-rich soil conditioner, and liquor that can be used for fertilizer.

**Composting:** Food scraps can be composted. Ask the composting facility you plan to use for a list of acceptable materials and hauling options. Another option is to compost on site. Before beginning such an operation, be sure you have adequate space, staff, end users, and support and cooperation from business or residential neighbors. Contact your local or state environmental agency to find out more about composting options in your area and more information on special issues that apply. Learn more about the science and technology of composting—including various methods—at <http://www.epa.gov/waste/conserve/rrr/composting/science.htm>.

### Food for Thought


 Coca-Cola sends leftover food from its cafeteria and banquets to Atlanta's Table, a local branch of Foodchain (a network of prepared and perishable food rescue programs).


 Stonyfield Farm Yogurt donates leftover yogurt to local hog farms.


 The University of Vermont composts 115 tons of its dining hall food waste per year for an annual savings of nearly \$11,000 in avoided landfill tipping fees.





### Hungry for the Basic Facts

 Almost half the food in the United States goes to waste.

 Food is now the #1 material sent to landfills and incinerators each year.

 Food waste makes up almost 14 percent of all the municipal solid waste generated in the United States.

 Less than 3 percent of food waste is recovered.

 Food waste losses account for up to \$100 billion per year; \$30-40 billion occurring within the commercial or retail sector (e.g., restaurants, convenience stores) and \$20 billion from farming and food processing.

To learn more about food waste, visit [www.epa.gov/foodrecovery](http://www.epa.gov/foodrecovery)

## **Video: Borough of State College – How Composting Works**

*Soft background music starts.*

*Food Establishment staff person (FE) and Borough staff person (SW) talking:*

FE: Isn't composting hard to do?

SW: Not at all! Here's how it works:

*Show food waste container:*

SW: First, all the food waste is collected in smaller bins inside your establishment.

*Show outdoor bin:*

SW: Then the small bins are emptied into the food waste containers outdoors.

*Cut to compost facility:*

FE: Is this where our food waste goes?

SW: You've got it! It's brought here and mixed with yard and leaf waste and composted.

*Cut to finished compost (not bagged):*

FE: I can't believe this beautiful compost was once piles of food waste we used to throw away.

SW: I know what you mean! The organic waste has to cure for about three months to turn into compost. Then it is screened to remove debris, leaving this rich compost with lots of nutrients.

*Show bagged compost:*

SW: Borough residents can buy compost in 35 pound bags or by the truckload. It helps plants grow bigger and stronger in your garden or on your farm.

FE: So, I see. It's easy to compost and you get valuable nutrients for your plants.

SW: Yes. This is how it works. Thank you for taking The Next Step.

*The Borough logo [and food establishment logo?] transitions onto slide.*

*Soft background music stops.*

*End slide with text:*

Written and Produced By: \_\_\_\_\_

Directed By: \_\_\_\_\_



Shot and Edited By: \_\_\_\_\_

Storyboarding By: \_\_\_\_\_

Starring: \_\_\_\_\_

For more information, call \_\_\_\_\_

DRAFT

## **Video: Borough of State College – How to Recycle Food Waste**

*Soft background music starts.*

*Food Establishment staff person (FE) and Borough staff person (SW) talking:*

SW Voice: Here's how to set up a recycling and composting program at your food establishment

FE Voice: Will it take a lot of time?

SW Voice: Not once the program is up and running. The first step is to audit your trash to learn what your business throws away each day, and to identify what you can and cannot recycle. Our staff can help you with the waste audit.

SW Voice: Next, choose an employee to be a Recycle Champion. They will help train other employees, track results and report progress on a regular basis.

*Show food waste container.*

SW Voice: Now it's time to set up the containers for recyclables. Clearly identify the containers, and, if possible, color-code them for garbage, organics and the various recyclable items. Post signs on or above the containers, with pictures and concise, easily-understood instructions.

*Show posters.*

FE Voice: How will the employees and customers know what to do?

SW Voice: You will need to train employees on the importance of recycling. Show them what to recycle and what to discard. Here's where your Recycle Champion comes in. Once the first set of employees is trained, the Recycle Champion can remind other employees of the importance of putting everything in the correct container. Try to involve customers by posters in prominent places. If you can add notes to the menus or place mats, that will help, too.

*Show recycling certificate that they can earn.*

SW Voice: Last but not least, promote your efforts. Let your customers and the community know how much you are recycling and helping the environment.

FE Voice: Thank you for explaining how easy it is to recycle and compost.

SW Voice: Thank you for taking The Next Step.

*The Borough logo [and food establishment logo?] transitions onto slide.*

*Soft background music stops.*

*End slide with text:*

Written and Produced By: \_\_\_\_\_

Directed By: \_\_\_\_\_

Shot and Edited By: \_\_\_\_\_

Storyboarding By: \_\_\_\_\_

Starring: \_\_\_\_\_

For more information, call \_\_\_\_\_

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## **Video Script: Borough of State College – Recycle/Reduce Waste – The Next Step**

Food Establishment Staff person (FE) Voice: “At [name of food establishment] The Next Step in recycling and reducing waste starts with me.”

*Soft background music starts.*

FE Voice: “We compost all of our leftover food from our kitchen and our customer area. We have special food waste bins for discarding all leftover food and kitchen scraps. From there it is taken to a compost dumpster outside our business. Every week the dumpster is picked up by [name of hauler] and taken to [name of compost facility]”.

FE Voice 2: “Along with composting we also have untouched food that is safe and healthy. We donate these items to a local organization called [name of food donation organization]. This organization collects food weekly to distribute to [food bank or organization] in State College”.

Borough staff person Voice: Thanks to [name of food establishment], the Borough of State College is recycling and reducing more food waste. What used to be thrown away is now a valuable product.

FE Voice, FE Voice 2: “The Next Step - It starts with me.”

*The food establishment logo [and the Borough logo?] transitions onto slide.*

*Soft background music stops.*

*End slide with text:*

Written and Produced By: \_\_\_\_\_

Directed By: \_\_\_\_\_

Shot and Edited By: \_\_\_\_\_

Storyboarding By: \_\_\_\_\_

Starring: \_\_\_\_\_

For more information, call \_\_\_\_\_