



COMMERCIAL RECYCLING TOOLKIT

recyclefullcycle

home base, work space, every place a 360° recycling mindset



Michael A. Nutter, Mayor
David J. Perri, P.E., Streets Commissioner



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Recycling in Philadelphia has never been easier or better for the bottom line!

In creating this toolkit, the City of Philadelphia consulted with myriad businesses and building operators – small and large, downtown and in the neighborhoods, for-profit and not-for-profit, multi-tenant and stand-alone – to find out how real Philadelphia businesses successfully recycle in the real world. Challenges will arise, but businesses that recycle are proud of their accomplishment and know that recycling is the right thing to do. This toolkit will make it easier than ever to join them.

Use the toolkit to find:

- Ways to implement a successful recycling program at your business
- Philadelphia's recycling requirements (surprisingly few!)
- Tools to understand your waste
- Great reasons why businesses recycle
- Recycling success stories from other businesses like yours

And at the heart of the toolkit, you'll find best practices for successful recycling, including ones that may be cost-neutral or even save you money!

Read recycling success stories from real businesses with real world time, money, and staffing constraints!

- Multi-tenant office building
- School
- Hospital
- Coffee shop
- Restaurant
- Apartment building

Your business is unique. The products and services that you provide are different from others; so is your trash and recycling. Understanding how your waste differs from your neighbors will give insight into how to keep your disposal costs down. If your business generates certain types of waste, you may even be able to save money by recycling.

Use this recycling toolkit as a how-to manual and handy reference guide in making recycling part of your business's daily life!

Recycle Full Cycle: Businesses

The City of Philadelphia is home to more than 50,000 businesses. These businesses – large or small, family-owned or part of a national corporation, and even apartment buildings – all fall under the City of Philadelphia's Commercial Recycling Law. Just like businesses pay a waste hauler to take away garbage, each and every business has to recycle. However, complying with the City's recycling law is not only easy, but it can also be cost neutral or even save money.

A large majority of Philadelphians are already recycling at home and have come to expect recycling everywhere they go. By taking better control of the waste they generate, businesses have the potential to save money and make a favorable impression on their customers. This toolkit will walk business owners, managers, administrators, and others through the process of setting up a recycling program or improving their current program. Inside this toolkit there are case studies of a wide variety of businesses that already recycle, easy-to-understand information on Philadelphia's recycling law, and resources to make implementing or improving your recycling program as easy as possible.

Why should my business recycle?

There are plenty of good reasons why your business should implement a recycling program. Here are some of our favorites.

It's the law.

Since 1994, all commercial, industrial, and institutional buildings have been required to submit a recycling plan and, at the minimum, recycle the same materials as residents – bottles, cans, paper, cardboard, etc.

Implementing a successful recycling program could be good for your bottom line.

The more you recycle, the less garbage you have, which means that you're in a better position to control costs as trash fees increase. Having a firmer grasp of your waste and recycling fees allows for better overall business management. Actual program costs will vary by business type and style. To maximize the savings potential of your Recycling Plan, see the "Best Practices" section.

It helps the City's economy.

Recovering the value of materials through recycling creates jobs and spurs Philadelphia's growing recycling sector. Recycling industries provide jobs for Philadelphians and help boost our city's economic growth by increasing the tax base.

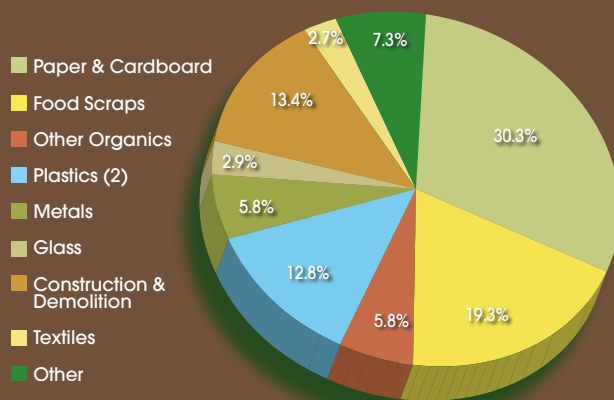
It's the right thing to do.

The environmental benefits of recycling are found at every stage of a consumer product's lifecycle – from the mining of raw materials through use and final disposal. By redirecting waste to serve as raw materials for industry, recycling conserves valuable natural resources, saves energy used in extracting and processing those resources, reduces greenhouse gases, and decreases air and water pollution from disposal.

What does the City require and why do they require it?

You probably know that Philadelphians are required to recycle at home. But did you know that the City requires the same commitment from businesses? All commercial, institutional, and industrial properties – including residential buildings with more than six dwelling units – need to have a recycling program. Penalties for noncompliance can amount to \$300 per violation per day. The recycling regulations were developed in response to Pennsylvania's Act 101, which requires all municipalities with more than 5,000 people to adopt and enforce commercial recycling plans. Philadelphia's commercial recycling regulations can be found in Chapter 10-724 of the Philadelphia Code.

Estimated Commercial Solid Waste Composition %



Source: Philadelphia Recycling Office

Complying with the City's requirements is easy. Just follow this simple compliance checklist:

- ✓ File an official Recycling Plan with the Philadelphia Streets Department. Visit <https://secure.phila.gov/streets/commrecycling> to easily file your plan online. Note: The plan only needs to be submitted once, although a business should update it in the event of changes such as name, hauler, address, etc.



City of Philadelphia
Commercial Solid Waste and Recycling Certificate

Business Information

OPA# 000000001
 Property Name Dynamite Van Moving & Deliveries
 Property Address 0001 BROAD ST.
 Contact Name Asa Wilks

Manager Information

Name	Asa Wilks	City	Philadelphia
Address	0001 BROAD ST.	State	PA

Property Type

Office

Material Recycled

Office paper/Mixed Paper	Glass	Aluminum cans
Newsprint	Cardboard	Steel bi-metal cans
Plastic		

Hauler Information

Name	Waste	Recycle
Liberty Bell Recycling & Trash Co.	Y	Y

Date Submitted: 03/19/2010 Last Revised: 03/19/2010

Staying in Compliance & SWEEP

Information You'll Need to File a Recycling Plan

- Your Office of Property Assessment (OPA) number
 - Found on the envelope you originally received from OPA, or you can look it up through the OPA website at www.phila.gov/OPA/Pages/PropertyInformation.aspx
 - If you have trouble locating your OPA number, please call **215-686-5444**, and someone will assist you with finding it.
- Your hauler service information, including your customer account number
- Property owner/manager contact and accountability information
- Types of materials you recycle (typically mixed paper, cardboard, and plastic, metal and glass containers)

SWEEP – The “Streets and Walkway Enforcement and Education Program” ensures the enforcement of the recycling and sanitation code. In addition to inspections of residential curbside setouts, SWEEP officers visit commercial properties to check proper recycling techniques. Having your recycling plan posted in a prominent area will expedite your visit from SWEEP. All businesses, including those with headquarters outside of the city, post the Recycling Plan on the premises.

- ✓ Publicly post your Recycling Plan. A good location is next to your other City of Philadelphia business licenses.
- ✓ Distribute copies of your plan to all employees and tenants.
- ✓ Provide adequate recycling containers to employees and tenants. (A good rule of thumb is one recycling container per trash can and/or workstation.)

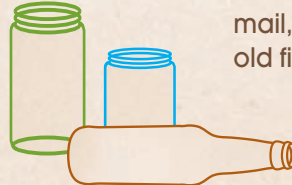
Recycling Straight Talk: Point of Generation

This means that your waste and recycling hauler may not separate recyclables from mixed garbage at a solid waste facility. The separation must happen on-site at your business. There are no permitted facilities on the East Coast that are capable of separating recyclables from mixed solid waste. If your hauler isn't providing you with a separate recycling dumpster, that's a pretty good sign that they're not complying with the law, and you'll want to give them a call.

Required Recyclable Materials



Flattened cardboard



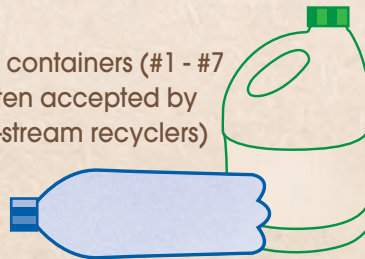
Glass jars and bottles

Mixed paper (newspaper, junk mail, magazines, catalogs, old files, reports, etc.)



Metal food and beverage cans (aluminum, bimetel (tin) cans)

Plastic containers (#1 - #7 are often accepted by single-stream recyclers)



Cartons (juice, milk, soup, etc.)

Recommended Recyclable Materials

- Organic waste, including food scraps and landscaping remnants. Pursuant to Chapter 10-722 of the Philadelphia Code, businesses that generate food waste are required to either install a garbage disposer or arrange for twice-weekly collection of organic waste. See the Appendix for a list of organic waste haulers.
- C&D (construction & demolition) waste, including drywall, wood, block, brick, stone, asphalt, etc. See the Appendix for a list of C&D haulers.

Required Recyclable Electronics

- Desktop and laptop computers and monitors
- Televisions (all types – cathode ray tube, plasma, LCD, etc.)
- Computer peripherals (printers, keyboards, mice, etc.)

See the Appendix for more information on electronics recycling.

E-waste

Since January 2013, businesses and residents alike must recycle most electronic waste, or “e-waste.” Small businesses with fewer than 50 employees may drop-off electronics at specified recycling facilities, usually free of charge. Businesses and buildings with more than 50 residents/employees must contract with a certified electronics recycling firm. See the Appendix for restrictions and a list of electronics recyclers in the region.

How to Implement a Successful Recycling Program in Philadelphia

What materials must be recycled?

Businesses are required to separate out for recycling the same materials that are typically recycled through the residential curbside recycling program in Philadelphia. These materials must be separated from the trash at the point of generation.

8 Easy Steps to Getting Set Up

1 Get management on board.

Getting management buy-in is critical to launching a successful program. This signals to employees, tenants and customers that recycling is important to your business and should be taken seriously.

2 Identify a recycling champion.

While it's critical to have management on board, it's also important to identify someone to "own" the recycling program – someone who is the point person for recycling questions and issues that might arise. This person could be at the management level, or it could be an employee who is particularly passionate about recycling. At larger businesses, it might be beneficial to have multiple people who can champion recycling in various departments.

3 Determine recycling needs.

You'll be in a much better position to set up a cost-effective recycling program if you know how much of your waste stream is recyclable. Many businesses can determine recycling needs by simply visually inspecting their trash to get a sense what kind of waste they generate and in what quantities. Check out

the "Assessment Tools" section for more information on how to survey your waste.

4 Line up a licensed hauler.

If a private hauler picks up your trash, you can simply approach them about adding recycling pick-up. However, you might want to take this opportunity to shop around and see if another hauler can offer services that better suit your needs or a better rate. See the Appendix for information on getting a competitive bid from a hauler licensed by the City of Philadelphia.

If you receive city collection and pay the \$300 solid waste resources fee, you can simply set out your recycling for collection on the same day as your trash is picked up. Recycling can be set out in any durable, rigid container of 32-gallon capacity or less marked with the word "Recycling."

5 File your Recycling Plan with the City.

All businesses are required to file a Recycling Plan with the City. Filing is easy, and you can do it via a one-page form online at <https://secure.phila.gov/streets/commrecycling/RecyclePlan.aspx>.

6 Get everyone on board.

Buy-in from all stakeholders is the key component of any recycling program, and to make yours successful, everyone needs to be on board, from upper management to janitorial staff. Meet with housekeeping staff to inform them of the new recycling program and solicit their feedback on how to best make it work.

Everything You Need to Know About Dumpsters, Licenses, and Medallions

Your recycling hauler will provide you with an appropriately sized dumpster or other receptacle for your recycling, but it's up to you to get a dumpster license.

Licenses are required for any trash or recycling dumpster or cart, regardless of size, collected by a private hauler. You can obtain an application for a dumpster license by calling the Department of Licenses and Inspections (L & I) at **215-686-2491** or visiting their website online at <https://business.phila.gov/Documents/Licenses/Dumpster.pdf>. Fees vary based on the size and location of your container, and the type of

materials collected. For example, dumpster license fees for recycling containers are half that of trash container fees – yet another reason why recycling can save you money!

If your application is approved, you'll receive a medallion to attach to your dumpster. The medallions are used by Streets & Walkways Education & Enforcement Program (SWEEP) officers to electronically identify your dumpster and ensure that you are adhering to dumpster code. You must renew the license each year and inform L & I if your hauling company changes.

Posting your Recycling Plan and distributing copies to all employees and tenants is a good step, but you may want to send out a memo (see Appendix for a sample) or have a quick meeting to let everyone know that your business is implementing a recycling program, what materials will now be recycled, and how it might impact their daily activities. This will give employees and tenants an opportunity to ask any questions they may have.

Some haulers will provide you with educational tools or even on-site training, so be sure to ask yours for any help. The City also makes educational and promotional tools available on its website.

7 Make sure recycling is easy and bins are abundant.

Most people want to do the right thing and recycle, but the demands of a busy work schedule can make it difficult if recycling bins are hard to access or it's unclear what to recycle. Here are some tips to make it easy for employees and tenants:

- **Strategically locate recycling bins next to trash receptacles** so it's just as easy to recycle as it is to throw something in the trash.

- **Take the guesswork out of recycling by locating signage in a prominent place** at each trash and recycling station so it's easy to know whether an item is recyclable or trash. The City offers downloadable flyers, posters, and recycling bin labels on its website. Go to www.philadelphias-treets.com/recycling/work-space-business-commercial.

- If your employees have individual workstations, **place recycling bins at each workstation.**

8 Start recycling!

Congratulations! You're on your way to having a successful recycling program at your business! After a few months, you should reevaluate your program and determine whether any adjustments need to be made.

Best Practices for a Successful Recycling Program

Make recycling easy.

Locate recycling bins wherever there is a trash can to make it easy for employees, tenants, and customers to make the right decision and recycle. Make sure recycling bins are located at all workstations so that staff doesn't need to go out of their way to recycle.

Recycling Straight Talk – Will Recycling Cost My Business Money?

The answer depends on a number of factors. As with garbage collection service, there are costs associated with recycling pickup such as labor, fuel, purchasing and maintaining trucks, and more. Haulers also pay a fee to "tip," or unload, materials at a solid waste facility. However, the fees for tipping recyclables are often much less than those charged for trash. "Avoided disposal fees" is the term used to describe the money that is saved by not disposing of recyclables as trash. Ask your hauler if these savings may be able to offset any new collection costs.

When you set up a recycling program, the amount of trash you generate will decrease in proportion to the amount of recyclables you'll be able to divert. Instead of paying for the empty space you'll see in your garbage dumpster, ask your hauler to "right-size" your service level by:

- Reducing the size of your dumpster; or
- Picking up or emptying it less frequently (e.g., once per week instead of twice per week).

The following table shows how a business might calculate potential benefits of right-sizing solid waste services (prices shown are for example only).

BEFORE	
Service Level:	One 8-cubic yard dumpster picked-up 2x per week.
Cost per Month:	\$500.00
Dumpster License Cost (annual):	\$150.00
Annual Costs:	$\$500 \times 12 \text{ mos.} + \$150 = \$6,150$

AFTER				
Service Level:	One 8-cubic yard dumpster picked up 1x per week.	+	One 8-cubic yard recycling dumpster picked up 1x per week.	New Annual Costs: \$ 5,025
Cost per Month:	\$250.00	+	\$150.00	
Dumpster License Cost (annual):	\$150.00	+	\$75.00	
Annual Costs:	$\$250 \times 12 \text{ mos.} + \$150 = \$3,150$	+	$\$150 \times 12 \text{ mos.} + \$75 = \$1,875$	

Source: Philadelphia Recycling Office

Ongoing Education and Management.

Make sure staff and/or tenants know what to recycle, where to recycle, and how to recycle. It's best to do this in-person with visuals of actual recycling and trash items. Some haulers will even send a representative to your building to assist with on-site training sessions and recycling promotions.

And remember, everyone could use a little friendly reminder from time to time. Hold periodic "refresher" meetings so that people continue to recycle properly.

For new tenants and residents, it's best to address recycling as early as possible. This sometimes means at the time of move-in, before move-in, or even at the architectural stage for building retrofits.

Develop a non-confrontational system for compliance, especially in multi-tenant buildings. Consider simply not collecting trash and recyclables from a station if they're mixed together. Log the occurrence, and have staff leave a friendly reminder and information of what is recyclable.

Use signs.

A picture is worth a thousand words when it comes to recycling. Make sure signage with visuals of acceptable materials appear wherever there are trash and recycling containers. If someone has to guess where an item should go, it's probably going to end up in the trash, so help them put that soda can in the right place by showing them where it should go.

The City offers downloadable flyers, posters, and recycling bin labels on its website. Go to: <http://www.philadelphiastreet.com/recycling/work-space-business-commercial> and scroll down to the Resources section.

Identify recycling champions.

Management can't be everywhere at all times, so identify a recycling champion or several champions who can answer questions and make sure recycling is happening properly throughout your organization. These champions can also help identify problems with your current recycling system and find ways to improve your program. Ultimately, recycling is everyone's job, but it's helpful to have designated leaders who are accountable for making sure it happens properly.

How to Evaluate Your Bill

View the entire garbage bill, as well as the individual line items, including all service, disposal, container rental, and fee charges. You may also see fees associated with extra container service, container overflow, contamination (for recyclables), "environmental" charges, and state and local taxes and surcharges. Large waste companies usually break out bills into smaller component pieces, while smaller haulers tend to provide a single lump sum.

Is there variability in the monthly bill? Compactors and large roll-off dumpsters usually have a per-pull charge plus a weight-based charge. Small dumpsters are usually serviced with a prescribed number of collections per week at a flat monthly rate. Haulers protect themselves against cost increases, so flat service charges tend to be higher in the long run.

What fees are subject to change? Some companies index their fuel surcharge fees to the Department of Energy fuel index. Know what the fees are and how they might change.

Know your garbage bill.

Many businesses end up with waste collection services that don't fit their needs, or worse – overpay for these services. Take time to go over your bill and ask your hauler questions about things you don't understand. Especially if you start recycling more materials, you may be able to decrease the frequency of your trash pick-ups. Talk to your hauler about different options that might be available (and how it will impact your cost) if you increase how much you recycle.

See the Appendix for a list of questions to ask your hauler. Finally, make sure to check your bill regularly to note any unexpected fees or price increases.

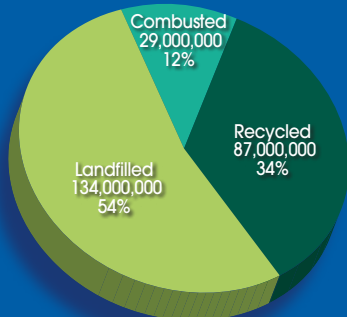
Communicate constantly.

Constant communication between management and haulers, housekeepers, staff, tenants, and customers helps ensure that your recycling program will continue to run smoothly and cost-effectively. Let staff and tenants know when they're doing a good job (or when something could be improved), and solicit feedback from your hauler about the quality of the recyclable materials you're providing them. Problems with the latter can signal that changes need to be made to your recycling process.

Where Does Our Garbage Go?

U.S.

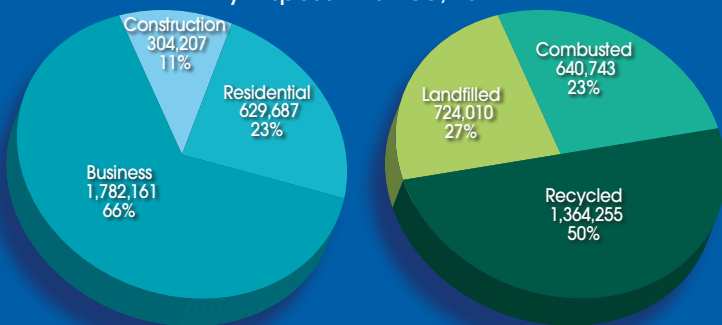
Solid Waste Management in the U.S., 2012
(in tons and percentages)



Source: US EPA

Philadelphia

Philly Solid Waste Generation by Sector &
By Disposal Method, 2012



Source: Philadelphia Recycling Office

Understanding Your Waste: Assessment Tools

It's a truism that you can't manage what you don't measure, and waste is no different. Better waste management can mean lower costs, and that's something every business can benefit from.

Waste Composition Survey

Surveying your waste is the easiest way for you to understand the volume of waste leaving your business, as well as what percentage of that waste is recyclable. The knowledge allows you to negotiate better waste and recycling hauling contracts that more appropriately suit your needs and potentially save you money.

But don't worry – conducting a survey doesn't need to be hard.

Waste composition studies can vary in depth, but for many businesses, a visual inspection is sufficient to give you a sense of how much and what kind of waste you generate. "Eyeball" your waste over several days, and you'll quickly get a feel for

the amount and types of materials leaving your business.

More information about conducting a survey, including a sample waste estimation worksheet, appears in the Appendix.

Waste Process Mapping

Waste process mapping helps you understand the flow of materials through your facility. It can help you determine the best locations for recycling and trash containers, and it can also show you where recycling procedures may break down in your facility. Process mapping is an effective tool for maximizing the amount of recyclables being captured from your waste stream.

FAQs

What materials must be recycled?

You are required to recycle the following materials:

- Cardboard
- Mixed paper (newspaper, junk mail, magazines, catalogs, old files, reports, etc.)
- Glass jars and bottles
- Metal food and beverage cans (aluminum, bimetal (tin) cans)
- Plastic containers (#1 - #7)
- Food and beverage cartons

Also, the following electronics (e-waste) must be recycled via a separate collection (see Appendix):

- Desktop and laptop computers and monitors
- Televisions (all types – cathode ray tube, plasma, LCD, etc.)
- Computer peripherals (printers, keyboards, mice, etc.)



Can I put all my recyclables together for my business like I do at home?

That depends upon your hauler service. If the City of Philadelphia picks up your trash, then the City also collects your recycling, which means that you can set out your materials for single stream curbside collection just as Philadelphia residents do. If you have a private hauler service for trash and recycling, the process will depend on your hauler's requirements. Contact your hauler to decide the best method for collection based on your business needs. Electronics will always need to be collected separately from trash and "normal" recycling (see Appendix).

Am I able to mix my trash and recycling together and rely on my hauler to separate recycling from trash for my business off site?

No. There are no facilities on the East Coast licensed to or capable of separating recyclables from trash. Separation must happen at your business, and recycling must be hauled away separately. Your recycling and trash cannot be collected together in one container and then separated from one another at an off-site location.

Does my hauler ACTUALLY recycle my recyclable materials?

Haulers that don't recycle are literally throwing money away. It costs a hauler more money to dispose of material in a landfill than it does to take it to a recycling processor, who may even pay the hauler for its materials. It's unlikely that your hauler is throwing out recyclable materials.

Can I just take my trash and recyclables home?

No. Under the City of Philadelphia sanitation regulations you cannot take materials from your business to your residence for disposal. Refuse must be set out at the location where it is generated. Properties deemed non-compliant are subject to all applicable fines and penalties.

Can I bring my trash and recycling to a waste facility on my own?

No. Under the Sanitation Code for businesses you cannot. Only licensed haulers registered with the City of Philadelphia may haul trash and recycling. A hauler's license is required for transporting your recyclables or waste to a recycling facility or landfill. The disposal locations will not allow unlicensed private vehicles onto the premises. The notable exception to this regulation is e-waste.

Can I get blue recycling bins from the City, and do I need them?

The City generally does not provide recycling bins for businesses. Businesses that receive City pickup can purchase their own recycling bins at home improvement, hardware, and home goods stores. Any durable, rigid container of 32-gallon capacity or less is acceptable. Simply mark it with the word "Recycling," and sanitation workers will know that the material is recyclable.

Can I participate in the Philadelphia Recycling Rewards Program?

No. Businesses are not eligible to participate in the program that offers deals and discount coupons to residents. However, recycling more and decreasing your trash can save you cold hard cash when it comes to avoiding waste costs.



Photo courtesy of ReCommunity Recycling



Photo courtesy of Waste Management

Do I have to get a medallion from Licenses & Inspections, and how do I do that?

If you use a container of any size for trash or recyclables that is serviced by a private hauler, you are required to get a dumpster license. Fees vary based on the size and location of your container, and the type of materials collected (e.g., dumpster license fees for recycling containers are 50% of trash container fees). You can obtain an application for a dumpster license by calling Licenses and Inspections at **215-686-2491** or visiting their website online at www.phila.gov/li.

Are medallions and the Recycling Plan the same thing?

No. Medallions are used to regulate dumpsters. A Recycling Plan must be established for each business location.

How do I file my Recycling Plan with the City of Philadelphia?

You can file your Recycling Plan online at <https://secure.phila.gov/streets/commrecycling/RecyclePlan.aspx>. You can also view and print your existing plan from this website.

My business is part of a larger chain that backhauls its waste to the warehouse in otherwise empty trucks. Do I still need to file a Recycling Plan?

Yes, you must still file and post a Recycling Plan.

My business receives City collection via the “solid resource collection fee.” Do I need to file a Recycling Plan?

Yes, you must still file and post a Recycling Plan.

I do not have space for a dumpster at my business location; do I still have to recycle?

Yes. You are required to recycle all of the mandated materials you generate regardless of space. If your business has implementation challenges, please email commercial.recycling@phila.gov, visit www.philadelphiastreet.com/commercial, or call **215-686-5444** for suggestions and assistance.

Can I request an exemption from recycling for my business?

No. Although an exemption was available in the past, all businesses must now make appropriate provisions for recycling the mandated materials generated by normal daily operations.

I’m a federal, state, or city agency. Am I exempt from Philadelphia recycling regulations?

No. All businesses and agencies, no matter the type, must comply with local regulations, including those that govern recycling in Philadelphia.

Under what circumstances might my business receive a citation?

The SWEEP officer may have visited your location and the inspection did not reveal the appropriate recycling practices in place, the proper containers for recycling available, the proper education material for employees or tenants, a posted recycling plan, or any indicator that the business is not in compliance with the Commercial Recycling Regulations. The citation may have been generated because your location failed to meet the Commercial Solid Waste and Recycling Plan filing requirement within the 30-day deadline.

How do I dispute a recycling citation?

To dispute a citation, please follow the directions available on the back of the citation listed by the Bureau of Administrative Adjudication (BAA). You may also contact the BAA directly at **215-686-1584**.

“Businesses can go a long way toward helping themselves, the City and the environment by implementing a well-designed Recycling Plan.”

~ Mayor Michael A. Nutter

Office Building Case Study: Three Logan Square Neighborhood: Center City

Primary reason for recycling: *Environmental consciousness*

Stats & Facts

- Multi-tenant office building with 53 floors and 1.2 million SF
- Approximately 3,500 workers
- 43 tenants with between 1,200 and 200,000 SF, including two food vendors on the first floor

Primary waste hauler: *Waste Management*

Disposal Equipment

- 6x 2 cubic yard trash dumpsters - collected five days/week (Tuesday-Saturday)
- 40 cubic yard single stream recycling compactor - collected one day/week (between 3.5 and 7 tons/pull)

Key Challenges

- One team of housekeepers collects trash and recycling daily from 43 different tenants. Constant vigilance is required to keep tenants in compliance.
- Many tenants are firms that require high-end finishes and must discretely locate all trash and recycling bins and signage.

Program Highlights and Solutions

History

- Building-wide recycling came into force in 1994, even as the building moved from three large tenants to become the truly multi-tenant office of the present.

Logistics

- Since 2005, the building has maintained a one can desk-side waste system where the default can is for recycling. Trash and recycling cans are located in conference rooms, kitchens and common areas. Colored liners are used in common cans to reinforce which are trash and recycling.
- Because desk-side cans do not contain messy food items, many cans are unlined, saving on plastic bags and associated costs.
- In offices with high-end finishes, trash and recycling cans are located in discrete, under counter, pull-out drawers with only minor signage.
- ACER and eForce Recycling handle universal waste (fluorescent bulbs) and electronic waste recycling.

- Building managers established a relationship with a demolition contractor to help divert cast-off office furniture from the trash and towards other businesses, government agencies, and non-profits.
- Construction and demolition waste is handled by contractors who are allowed one or two bays for dumpster placement in the loading dock depending on the time of day. Contractors tend to police their own waste as they seek to reduce costs by segregating and moving waste in the most efficient manner.

Oversight

- For recycling, food vendors, other tenants, and contractors rely on housekeepers, the only ones who can operate the keyed recycling compactor. This helps control recycling contamination issues.

Recycling Straight Talk: Contamination

Contamination happens when regular trash is mixed in with recyclable material, thus “contaminating” the load of recyclables. Contamination is problematic for recycling processors because it makes their finished product – sorted recyclable materials that are sold to manufacturers – less valuable.

Tenant Education and Engagement

- Waste issues are addressed with future large tenants during their architectural design phase, and addressed with future smaller tenants before move-in.
- To tackle their greatest recycling challenge – compliance – the building implemented a warning and recycling discipline system. If there is trash in a recycling bin, the material will not be collected. Housekeepers will leave an “Oops” sticker with information about what can be recycled, and record the location in a log book. If a complaint is lodged, the building manager can identify the event from the log book, educate the employee, and absolve the housekeeper of blame. Recycling will only be collected once the location comes into compliance.

Office Building Case Study: Three Logan Square Neighborhood: Center City

Outcomes/Takeaways

- The building has a 60-70% recycling diversion rate.
- The keys to effective recycling at Three Logan Square are vigilance, management and excellent housekeeping partners. A standard building-wide waste policy is easier to manage and compliance than letting each tenant create its own policies and procedures. Education is provided to tenants, as are expectations for the disposal of waste.
- Feedback and ideas to improve waste handling and diversion are solicited from housekeepers, who undergo periodic training and refresher courses about waste protocols.
- As the recycling from the building gets cleaner, Three Logan is looking to focus on the capture of more recyclables from the trash stream. Three Logan will seek help from its hauler, Waste Management, to provide literature, and help run periodic general meetings with facility managers.
- The building's waste bill is relatively small (only 1% of the building's energy bill), so proper waste procedures are more important than cost. Despite this, building managers do not recall an increase in waste bills when the company began recycling.

School Case Study: Wissahickon Charter School

Primary reason for recycling:

Student education; environmental consciousness.

Stats & Facts

- K-8th grade
- 450 students (70% qualify for free or reduced lunch)
- 70-80 full-time and part-time staff
- Approximately 60,000 SF

Primary waste hauler: Waste Management

Disposal Equipment

- 2x 2 cubic yard trash dumpsters collected two days/week
- 2 cubic yard rear load single stream recycling dumpster collected two days/week
- Cost for service: \$800/month

Key Challenges

- A unique challenge of any school is having so many different users.
- For a school with an environmental focus, recycling is a necessity.

Program Highlights and Solutions

History

- Wissahickon Charter School (WCS) has been recycling since their doors first opened in 2002, with paper and cardboard as the primary recycling materials.
- Composting has also been prevalent throughout the school's history. WCS used on-site worm composting prior to commercial pickup by Bennett Compost.
- Because of its green focus, WCS attracts teachers who are passionate about the environment, which undoubtedly makes recycling and composting easier.

Oversight and Training

- Teachers and staff are typically present at all times, and they keep an eye on waste collection practices and advise housekeeping when needed.
- Housekeeping staff has little turnover at WCS, so it is easier to keep the collection of recyclables consistent. No official recycling training takes place since staff simply trains other staff.

Logistics

- Recycling bins are visually different (blue, low, stackable bins) and are always located next to trash cans throughout the school.
- Shop around: WCS has changed organics recycling contractors on a couple of occasions in order to get the service levels that best fits their needs.
- Three one-gallon pails – red (trash), blue (recyclable), and green (compostable) – are located on each lunch table so that students can easily separate waste, which is then brought to a centralized location. The lunchroom produces the vast majority of the compostable waste, but WCS is investigating adding compost to classrooms to capture the fresh fruit snacks.
- Scrap paper is collected and reused in the classrooms, and classroom furniture is generally repaired instead of thrown away.
- Overall waste was greatly reduced by moving to reusable, washable plates and tableware.

Best Practices at Wissahickon Charter School

- WCS believes that the head custodian is a critical factor in the success of the recycling program, and there is a constant dialogue between custodial staff and students.
- According to WCS, the key to their recycling program is the students. WCS integrates recycling and environmental awareness into the school culture to teach good waste habits. WCS makes a direct connection for the students between the earth and recycling. In the first six weeks of school, WCS focuses on instilling the environmental and recycling culture and uses demonstration teaching to align students' behaviors from the beginning.
- WCS utilizes hands-on waste projects: sorting through trash, a student-led project on dog waste in the neighborhood, and a recycling "club" that monitors and relocates misplaced items in the trash and recycling. This connects kids to the reason to recycle and is far more effective than a "do this; don't do this" strategy.

Every year, the first grade's environmental focus is on waste, so recycling is ingrained in the culture from a very early age.

Hospital/Healthcare Case Study: Children's Hospital of Philadelphia (CHOP) Neighborhood: West Philadelphia

Primary reason for recycling:

Savings on garbage and disposal costs.

Stats & Facts

- 5 buildings, millions of square feet
- 527 beds
- 11,000 employees

Primary waste hauler: Waste Management

Disposal Equipment

- 4x 40 cubic yard trash compactors, emptied 6x/week
- 2x 20 cubic yard single stream recycling compactors, emptied 1x/week
- 4x 40 cubic yard construction and demolition debris (C&D) open top dumpsters, emptied 4x/week
- 1x 40 cubic yard cardboard compactor
- 1x 10 cubic yard organics compactor emptied 1x/week
- 8x 96 gallon organics totes emptied 3x/week

Key Challenges

- CHOP was spending a large amount of money to dispose of items that were needlessly discarded as red bag (infectious) waste.
- Employees, at all levels can be resistant to change.

Program Highlights and Solutions

Oversight

- CHOP dedicated a staff member from their in-house Environmental Services department to spearhead all waste reduction efforts and be the recycling coordinator (RC).
- The RC's office is located next to the main waste station and compactors to make it easier to answer questions that arise on the spot and keep a watchful eye over waste management.

Employee Education and Engagement

- The RC implemented a Red Bag Reduction Task Force that included several nurse managers. The RC performed 5 minute education sessions in each department, which included manually going through a trash can with the staff to help give them visual cues.

- Instead of performing extensive waste audits, the RC does spot audits by opening a bag and visually inspecting its contents. Items are often found that don't belong, so they're connected back to the originator and further education is performed.
- Signage for trash is labeled "Landfill," and all signage is created in-house with CHOP branding.
- Above waste receptacles in the cafeteria, shadow boxes contain real items illustrating recycling, compost and trash. For example, the recycling box contains a soda can, plastic bottle, and cardboard box.
- Staff are encouraged to take home items in the trash for reuse

Logistics

- A baler is utilized for shrink wrap and other films, and the RC educated Shipping & Receiving on shrink wrap and cardboard recycling.
- A composting program was recently added that primarily diverts food waste, but truly compostable bin liners are expensive and almost prohibited continuance of the program.
- Paper towels collected in restrooms are compostable, so restrooms contain a "compost only" waste receptacle as the sole receptacle.
- Since the organics compactor is emptied relatively infrequently (once per week), odor is minimized by adding a portion of newspaper and cardboard and pouring in baking soda.
- The healthcare industry has very strict shredding regulations concerning patient records, but it is not an impediment to recycling. Cintas, a provider of document management services, handles all shredded documents (which are in turn recycled), while regular paper is recycled via the standard single stream dumpster.

Goal Setting

- CHOP sets very specific goals and benchmarks for waste diversion and cost savings.

Collaboration

- CHOP is a member of the Healthcare Improvement Foundation, a roundtable of 17 healthcare organizations that meet, share data & ideas, and collectivize recycling programs/materials.

Hospital/Healthcare Case Study: Children's Hospital of Philadelphia (CHOP)

Neighborhood: West Philadelphia

Outcomes

- \$1 million saved in first year recycling was implemented; \$500,000 saved in subsequent years.
- CHOP reduced waste from 12 lbs trash/patient/day to 2 lbs trash/patient/day.
- Only 44% of CHOP's waste goes to landfill/incineration (FY2013), compared with 70% for a typical hospital.
- Cardboard compactor rebates helped to pay for much of the recycling program.

Best Practices at CHOP

- All recycling programs are piloted at a smaller and more manageable building. Any issues are worked out there, and the program is rolled out at the main building. Recycling procedures are constantly tested and refined rather than implemented and forgotten.
- Centralizing waste was key to successfully separating waste and CHOP now centralizes waste by department. A current goal is to eliminate desk-side cans to improve recycling diversion and reduce labor expenses. Convincing employees to give up their personal trash cans is very difficult, especially with doctors. The RC has found that it helps to use his pull within the Environmental Dept. to solve departmental issues (like fixing other housekeeping issues) to help offset the changes required by a focus on increased recycling.

- CHOP credits monthly meetings with their hauler as one of the keys to their success. They also meet with their sharps vendor, infectious waste vendors on a regular basis. They make sure to speak with as many entities as possible separately – hauler, compost processor, other vendors – and compare notes.
- CHOP routinely reviews their bills to ensure full understanding of their garbage and recycling services, and help head-off potential billing errors.

Where to Find More Information

Healthcare Without Harm (noharm.org) and Practice Green Health (practicegreenhealth.org) provide many best practices, tools and resources for implementing recycling and reducing waste.

Restaurant/Cafe Case Study: Mugshots Coffeehouse

Neighborhood: Fairmount

Primary reason for recycling:

Customer demand; environmental consciousness.

Stats & Facts

- 50 seats

Primary waste hauler: Gold Medal

Disposal Equipment

- 2x 96 gallon trash totes - collected 2 days/week (\$128/month)
- 1 cubic yard single stream recycling dumpster - collected 1 day/week (\$30/month)
- 96 gallon organics toter - collected 2 days/week (\$180/month)

Total cost for trash and recycling service (prior to composting): \$325/month

Total cost for trash, recycling, and compost service: \$338/month

Key Challenges

- Comply with city solid waste regulations while providing recycling and composting for little-to-no additional cost.
- Recycle and compost within a space-confined restaurant/bar setting.
- Increase customer compliance.

Program Highlights and Solutions

Logistics

- From the beginning, Mugshots has recycled and has composted materials like pre-consumer coffee grounds and tea bags from behind the counter (estimated to be about 10 tons/year) through Green Meadow Farm, a regular vendor that supplies bacon, cheeses, and in-season produce. As with other customers, Green Meadow Farm collects easily compostable, pre-consumer food scraps (and waste oil from certain businesses) free of charge that can be fed to chickens and added to their low-tech compost pile.

Recycling Straight Talk:

Pre- and Post-Consumer Waste

Pre-consumer waste refers to waste that is generated in the process of creating something that will then be sold to a consumer. For example, coffee grounds that are spent in the process of making a cup of coffee is pre-consumer waste. Post-consumer waste is generated once a consumer disposes of a product. For example, the coffee cup the consumer drank from is post-consumer waste.

- Mugshots added post-consumer compost that is collected 2 times/week by Bennett compost. These materials require a commercial compost facility since they include more durable items such as paper trays.
- Adding composting was the motivation for Mugshots to reexamine their trash and recycling collection.
- Mugshots has experimented with truly compostable coffee cups and takeout containers, but not found them to their liking, as they were not durable enough.

Customer Education and Engagement

- Mugshots' customer waste receptacles are labeled "Recycling" and "Landfill." The recycling receptacle has container-shaped slots in the lid as an extra visual reminder of what to recycle.
- With the introduction of customer composting, Mugshots posted additional signage detailing where to put specific materials (coffee cups, food scraps, plates, etc.) and compliance has increased.
- Mugshots plans to improve their signage and by adding clear shadowboxes containing commonly disposed materials above each of the 3 bins to visually show customers where to put various items.

Restaurant/Cafe Case Study: Mugshots Coffeehouse

Neighborhood: Fairmount

Employee Education and Engagement

- All staff is trained through an orientation process, which teaches them the business' philosophy, including their environmental philosophy.

Outcomes

- Composting has been largely cost-neutral, only increasing waste disposal costs by \$13 per month.
- By adding composting, Mugshots was able to save space by downsizing from a 2-cubic-yard trash dumpster collected 2x/week and three 96 gallon recycling totes collected 2x/week to the sizes and frequencies listed above.
- The switch to compostable sugarcane based plates avoids the cost of additional hot water to clean plates.

Best Practices at Mugshots

- Labeling trash as "landfill" has been effective in improving recycling and making customers think more about their waste.
- Tall "Slim Jim" recycling, compost, and trash containers are vital to recycling success in the kitchen/bar setting since they are large, but take up very little real estate.

“Businesses need to know that they can set up recycling right and save money, and then it’s not very hard to maintain.”

~ Angela Vendetti, Owner, Mugshots Café

Restaurant/Bar Case Study: McGillin's Old Ale House

Neighborhood: Center City

Primary reason for recycling:
*Street cleanliness and beautification;
space limitations.*

Stats & Facts

- Oldest pub in Philadelphia

Primary waste hauler: *Joseph's Hauling/
J&R Recycling*

Disposal Equipment

- 96 gallon trash toter - collected 7 days/week
- 2 cubic yard single stream recycling dumpster - collected 3 days/week
- 2x 96 gallon compost toters - collected 3 days/week

Cost for trash & recycling service (prior to composting): \$440/month

Cost for trash & recycling service (after composting): \$230/month

Key Challenges

- McGillin's is located on a side street with no other businesses, yet the alley and sidewalks are filled with dumpsters from nearby businesses that have no other place to put them.
- McGillin's wants to keep their dumpster and garbage corral clean, as well as set a good example for their neighbors.

Program Highlights and Solutions

History

- About six years ago, when beer distributors stopped collecting empty glass bottles for reuse, McGillin's started recycling. Adding recycling was cost neutral for McGillin's. By adding recycling, McGillin's was able to reduce their garbage service and expenses.

Oversight

- There are several vigilant recycling champions – managers, servers, chefs, kitchen staff – that keep an eye on recycling and help maintain the system.
- Because they must keep their trash, recycling and compost on the street, McGillin's has installed a security camera to ensure the recycling dumpster and trash and compost toters are not being misused.

- McGillin's manager, Chris Mullins Jr., believes that having recycling at a business is just part of being a good manager: doing the right thing, knowing and communicating with vendors, and controlling costs.

Logistics

- Heavy glass bottles are reduced by an emphasis on local, draft beers, as well as an industry trend towards aluminum cans. As a result, McGillin's recycling is primarily cardboard.
- To minimize non-compostable waste, McGillin's uses reusable glassware and cups, as well as compostable straws, souffle cups (cups for cole slaw, etc.) and paper tray liners.
- Recycling, composting and trash bins are located next to every food preparation or waste generation area in the kitchen. There are roughly 15 tall "slim jim" bins in 3 colors – blue for recycling, green for compost, and black for trash – each with a liner that matches the color of the bin.
- Compost bins are located behind the bar for items like lemons, limes, and compostable straws. Recycling bins are located at the entrance/exit to the bar for servers to recycle containers from the tables.
- All of their compostable wares were available through their standard suppliers, although McGillin's found it helpful to shop around for the best prices since they found great cost discrepancies between their suppliers.

Employee Education and Engagement

- Staff are trained in proper recycling procedures. Compliance is easier because there is very low turnover, but some employees need regular reminders about proper recycling procedures.

Outcomes

- McGillin's cut their trash and recycling bill in half when they added compost collection from Philly Compost. This cost reduction offsets about half of the composting cost, which is \$450/month.
- Adding recycling was cost neutral for McGillin's. By adding recycling, McGillin's was able to reduce their garbage service and expenses.

Restaurant/Bar Case Study: McGillin's Old Ale House Neighborhood: Center City

Best Practices at McGillin's

- Signage is located on all trash, recycling and compost receptacles in the kitchen to reinforce what materials belong in each bin.
- Color-coded receptacle liners further reinforce which containers are for recycling and compost.
- McGillin's regularly communicates with vendors and haulers to ensure proper waste practices and control costs

“If we can do it — 153 years old, employees who have been here for 37 years, slow to change — anyone can do it.”
~ Christopher Mullins, Jr., Manager, McGillin's

Apartment/Condominium Case Study: The Philadelphian Neighborhood: Fairmount

Primary reason for recycling:

Resident demand; environmental consciousness.

Stats & Facts

- Condominium building with 1.3 million SF
- 776 residential units
- Approximately 1100 residents (~50% of residents are seniors)
- 16 commercial tenants
- Law and other professional offices occupy several of the 776 residential units

Primary waste hauler: Waste Management

Disposal Equipment

- 6x 2 cubic yard trash dumpsters - collected 6 days/week
- 10 cubic yard single stream recycling compactor - collected 1 day/week

Key Challenges

- The Philadelphian is a high-rise building with one trash chute and one trash room per floor. Recycling is collected manually three times per day from a designated spot within each trash room.
- Housekeepers are often presented with small, mixed shopping bags of trash and recycling. Since they cannot sort through every bag, they are just trashed.
- As the recycling program has evolved, the signage and accepted materials has also evolved. Many original and outdated signs that can't be removed without damaging the wall are still located in the trash room.
- Recycling bins in public areas are considered by many residents to be unsightly.
- The Philadelphian was an early adopter of compact fluorescent lightbulbs (3500 CFLs and long tubes/year from common areas alone), and their proper handling and disposal was an issue because of their mercury content and their required storage space.
- The small grocery store and restaurant tenants produce a great deal of messy food waste.

Program Highlights and Solutions

History

- Responding to resident demand, The Philadelphian began recycling in 2008.
- The Philadelphian became one of the few residential buildings in Philadelphia to recycle fluorescent bulbs after a resident spearheaded the effort to begin a bulb recycling program that uses AERC Recycling as the vendor

Tenant Education and Engagement

- Education is done through many venues. Recycling tips and news are disseminated through the building email group, building TV station, and quarterly newsletter. Their hauler will conduct an on-site public education event in the fall.
- A seven member green committee serves to advise the building on sustainability matters and act as a liaison between the residents and management.
- The Philadelphia is looking to move from the many text-based signs in the trash rooms to simplified, standardized, and graphics-based signage. The planned renovations of the trash rooms will provide the perfect opportunity.

Logistics

- Besides recycling locations in the trash rooms, recycling bins are located in likely recycling generation common areas such as the mail room and the event space.
- The Philadelphian is investigating higher-end furniture-like trash & recycling bins that can be branded with the building's logo (instead of the standard blue plastic bins).
- Goodwill collects electronics, clothes, and furniture & housewares.
- Individual condo residents handle cell phone and ink cartridge recycling.
- AERC recycles alkaline batteries collected from residents and generated by semi-annual smoke alarm and thermostat change-outs.
- Kitchen cooking grease is collected weekly for free by GreenBrand Services.

Apartment/Condominium Case Study: The Philadelphian Neighborhood: Fairmount

- Bulky items from residents can be taken away and properly disposed for an a la carte fee based on the type of furniture, etc.
- Similarly, they are looking into cell phone, battery and CFL recycling kiosks for the loading dock. Presently, they're handed to an employee at the main desk in the lobby.

Outcomes

- Including all parts of the building (residential and commercial tenants), The Philadelphian has a 26% recycling diversion rate.

Best Practices at The Philadelphian

- The building's population is highly educated. Recycling mandates without a thorough explanation result in subpar compliance. Clear explanations with a rationale are the best way to change behavior.
- The Philadelphian put their waste contracts out to competitive bid last year and came away with a significantly improved contract from a new hauler.
- To submit an informed bid, the hauler performed a cursory waste characterization on the building that they continue to use to compile monthly reports with estimated waste weights.

APPENDIX

Contents:

- A2. Verifying Questions to Ask Your Waste Hauler
- A2. How to Get a Competitive Bid
- A3. Sample Kick-off Memo
- A4. Sample Lease Recycling Addendum
- A5. Sample Waste Audit Form
- A6. Weight Conversions
- A7. Electronics (E-waste) Recycling Facilities
- A7. Organics/Food Scrap Haulers
- A8. Construction and Demolition Waste Haulers
- A9. Resources for Purchasing Recycling Bins
- A9. Recycling Definitions
- A9. Website Resource
- A10. Other Sites of Interest

Verifying Questions to Ask Your Hauler

Where does my material go after it is collected?

How is it sorted and processed?

Are reports or diversion metrics available?

Is on-site training available and will you work to educate management and staff at my business?

Can you provide indoor recycling bins and signage?

Will you help to identify better ways to handle waste as well as additional recycling and waste diversion opportunities?

How to Get a Competitive Bid

1. Study your contract.

The standard waste contract in the Commonwealth of Pennsylvania is a 36-month, auto-renew contract. Identify when the term of your contract is due to renew and plan accordingly.

2. Know who you are and what you want.

Examine the quantity and composition of your waste or perform a cursory waste audit.

3. Talk to neighboring businesses.

Ask about their haulers and solicit feedback about their costs, frequency of service, and overall satisfaction. Trash and recycling trucks run on specific routes, so a hauler which also services your neighbors may provide you with a more competitive rate.

4. Get a site visit from prospective waste haulers.

Show them your building, and loading dock or trash enclosure. They may be able help estimate your required level of service based on square footage, number of employees, whether there is a kitchen on-site, etc.

5. Ask for references.

Ask to talk to existing customers and in larger commercial settings, ask to see other customers' waste setups. Businesses and haulers that recycle well are usually more than happy to show off their successes.

6. Get at least three bids.

It is advisable to solicit multiple bids, while five or more is preferable. Be wary of any outlier bids, both too high and too low.

Sample Kick-Off Memo

To: All Employees

From: Chief Executive

Subject: Office Recycling Plan

On **(DATE)**, **(COMPANY)** will begin an office recycling program. The objective of this program is to recycle **(LIST PRODUCTS)** that we generate in the **(OFFICE/LOCATION)**. This program is in full compliance with the City of Philadelphia's Commercial Solid Waste Regulations.

The recycling program is simple and will require few changes in your daily habits. Each of you will receive a special recycling container for your work area, in which you should place your recyclable office paper instead of throwing it in the trash can. A list of the types of paper we are trying to recover is attached to this memo and is printed on your recycling container.

Paper will be collected from your desk-recycling container on **(DAYS FOR PAPER COLLECTION)** by custodians. Trash will be collected as usual. If your container fills up before collection, please use one of the more centralized **(COLOR)** collection containers placed in your work area. These containers are typically located near **(LIST AREAS - PRINTERS, COPIERS, ARCHIVES)**.

We are also placing **(COLOR)** containers in the **(KITCHENETTES, LUNCH ROOM, CAFETERIA, OTHER SPECIFIC SITES)** for the recycling of **(MATERIAL TYPE)** beverage containers. Please try to make sure that cans are completely empty. Make sure you do not use these containers for trash or food waste!

On **(DATE)** we will hold a series of brief 15-20 minute recycling program orientation meetings for all employees in **(PLACE)**. Sessions will run every hour, on the hour all day. A separate schedule will be distributed on **(DATE)** for these meetings.

The success of this program depends on each of us. **(COMPANY)** is committed to environmental responsibility. Recycling is not only the law and good for the environment, it also saves money. Thank you in advance for your recycling efforts.

Sample Lease Recycling Addendum

The City of Philadelphia has a mandatory recycling program for both residences and commercial properties, including multi-family dwelling buildings. Property owners are required to notify residents about recycling requirements, designate an accessible recycling area, and maintain signs that explain what and how to recycle.

Residents are required to separate the following materials from their regular garbage and recycle them according to building management instructions:

Mixed paper (includes newspaper, magazines, office paper, etc.)

Cardboard (flattened)

Glass bottles and jars

Metal cans and containers

Mixed plastic containers codes #1 - #7

Food & drink cartons

To encourage recycling efforts and discourage noncompliant recycling behaviors, landlords may consider including a recycling requirement in new lease agreements. A suggested lease addendum for current occupants might include:

Additional Terms of Lease

This addendum states the addition of the following terms and conditions to be incorporated into the original lease agreement.

Recycling Collection:

- I. *Program Notification.* **(ENTER NAME OF PROPERTY)** has instituted a recycling collection service. New and existing occupants are informed of the program availability as well as details of the program.
- II. *Recycling Interior and Exterior Containers.* Interior containers will be provided to occupants upon moving in and are provided to all existing residents. Interior containers remain the property of **(ENTER NAME OF PROPERTY)** after the tenant has moved. Exterior collection containers for recyclable materials are located throughout the property. A map of container location and list of recyclable materials are provided to occupants upon move in and are also provided to all existing occupants.

This addendum is effective starting **(MM/DD/YYYY)** ____/____/____.

TENANT ACKNOWLEDGEMENT

I have been notified of **(ENTER NAME OF PROPERTY)** recycling program. ____ **(initial here)**

I have been provided with a list of accepted and not accepted items and have been instructed on where recycling containers are located throughout the property. ____ **(initial here)**

Sample Waste Audit Form

Waste Audit Worksheet

Your Business								Typical Waste Totals by Facility Type						
Material Type	Volume (cubic feet)		Conversion factor: 1 cf = weight (lbs.)		weight (lbs.)	% weight of total (weight / total weight)	Recyclable? (yes/no)	Office	Residential (apartment/ condo)	Restaurant/ Bar	Retail	School	Hotel	Public Events
Corrugated cardboard	0	x	10	=	0	0%		2%	3%	7%	6%	10%	3%	4%
Mixed paper	0	x	20	=	0	0%		45%	40%	15%	22%	30%	33%	38%
Commingled containers	0	x	5	=	0	0%		6%	11%	7%	4%	8%	8%	10%
Food waste & organics	0	x	55	=	0	0%		28%	22%	60%	28%	28%	33%	34%
Construction waste	0	x	15	=	0	0%		5%	7%	3%	13%	3%	10%	0%
Hazardous/ universal/ e-waste	0	x	25	=	0	0%		1%	1%	0%	2%	1%	4%	0%
Other waste	0	x	10	=	0	0%		13%	16%	9%	25%	20%	8%	14%
Total	0				0	0%		100%	100%	100%	100%	100%	100%	100%

Areas in green signify your businesses waste.

Tips and Instructions:

Familiarize yourself with the waste categories below

Approximated volumes and weights are recommended for most situations. Exact measurements are rarely needed unless in-depth investigation is desired.

For each material category, enter either a volume *or* weight. If volume is entered, use the conversion to change to weight.

Your dumpster is likely to be sized in cubic yards

1 cubic yard = 27 cubic feet

1 gallon = .13 cubic feet (1 cf = 7.5 gallons)

Conversion factors are estimates and are not exact. Adjust accordingly for in-depth investigation. For instance, if your business produces more glass, adjust the weight conversion factor upwards

More specific weight estimates can be found in the appendix entitled "Volume to estimated weight conversions of commonly recycled items"

Typical waste categories for businesses	
Corrugated cardboard	*flattened* two or three ply corrugated cardboard
Mixed paper	office paper, newspaper, colored paper, junk mail, magazines, catalogs, paperboard
Commingled containers	glass bottles & jars, aluminum cans and trays, steel (tin) cans, rigid plastic containers, paper cartons & aseptic packaging
Food waste & organics	food scraps, soiled paper, paper napkins, paper towels, compostable wares, waxed cardboard, yard waste
Construction waste	wood, drywall, rubble, carpet & padding, ceiling tiles, metals, etc.
Hazardous/universal/e-waste	computers & peripherals, cell phones, tvs, other electronics, solvents, pesticides, chemicals, oils, fluorescent bulbs, batteries, mercury, etc.
Other waste	plastic films & wrappers, styrofoam, coffee cups, latex gloves, sanitary products, textiles, shoes, furniture, etc.

Source: Philadelphia Recycling Office

Volume to Estimated Weight Conversions of Commonly Recycled Items

Material	Volume	Estimated Weight (pounds)
Cardboard		
Loose Cardboard	1 cubic foot	3
Flattened Cardboard	1 cubic foot	10
Baled Cardboard	1 cubic yard	600-1,000
Paper		
Office Paper (stacked)	1 cubic foot	22
20# Bond; 8 1/2 x 11	1 ream = 500 sheets	5
Ledger Legal Pads	1 case = 72 pads	38
Loose Newspaper	1 cubic foot	20
1" Single Copy (Newspaper)	N/A	3
Glass		
Uncrushed bottles	1 cubic foot	20
Crushed	1 cubic yard	55
Plastic		
Whole, Uncompacted Soda Bottles (PET)	1 cubic foot	1
Whole, Compacted Soda Bottles (PET)	1 cubic foot	15
Whole, Uncompacted	1 cubic foot	1
Jugs - Dairy, Water, Juice (HDPE), Whole, Compacted	1 cubic foot	10
Metal		
Whole Aluminum Cans	1 cubic foot	2
Manually Compacted	1 cubic foot	10
Whole Steel Cans	1 cubic foot	5
Flattened Steel Cans	1 cubic foot	30
Organics (organic densities vary depending on moisture content)		
Food Waste	1 cubic foot	60
Grass	1 cubic foot	15
Yard Trimmings/Leaves	1 cubic foot	10
Wood Chips	1 cubic foot	20

Electronics (E-waste) Recycling Facilities

Make sure to call ahead to verify that the facility can accept your materials.

Recycling Facilities:

ECOVanta Philadelphia

2209 South 58th Street, Philadelphia 19143 800-950-8749
www.covanta.com/en/sustainable-solutions/electronic-waste.aspx

eForce Recycling

3114 Grays Ferry Avenue, Philadelphia 19146 877-278-0799 www.eforcecompliance.com

Elemental, Inc.

2371 Church Street, Philadelphia 19124 215-289-1475 www.eleminc.com

Kuusakoski

3100 Orthodox Street, Philadelphia 19137 215-533-8323 www.kuusakoski.us

TBS Industries

4211 Van Kirk Street, Philadelphia 19135 215-535-6500 www.tbsindustries.com

Materials Processing Corporation

10551 Decatur Road, Philadelphia 19154 215-437-5552

Retail Recycling Locations (electronics only):

Staples

1300 South Columbus Blvd., Philadelphia 19147 215-551-7543
1500 Chestnut Street, Philadelphia 19102 215-864-9520
2290 Oregon Avenue, Philadelphia 19145 215-465-1763
7700 Germantown Avenue, Chestnut Hill 19118 215-248-4936
8500 Henry Avenue, Philadelphia 19128 215-483-2482
9906 E. Roosevelt Blvd., Philadelphia 19115 215-330-0642
Roosevelt Blvd. at Adams Avenue, Philadelphia 19124 215-535-7040

Best Buy

2300 S Christopher Columbus Blvd., Philadelphia 19148 215-676-7206
9940 Roosevelt Blvd., Philadelphia 19115 215-676-7206

For a complete list of what Best Buy will accept please visit www.BestBuy.com/recycling

Organics/Food Scrap Haulers

See the "Definitions" Appendix for more details on Organics.

Bennett Compost

1511 Latona Street, Philadelphia 19146 215-520-2406 www.bennettcompost.com

Philly Compost

250 Battleson Road, Ambler, PA 19002 215-703-7645 www.phillycompost.com

Republic Services

3000 E. Hedley Streetr, Philadelphia 19137 610-265-6337 www.republicservicesvalleyforge.com

Suburban Waste Services

1813 Marsh Rd. Suite C Wilmington DE, 19810 610-497-5763 www.suburbanwasteservices.com

Waste Management

408 S. Oak Avenue, Primos, PA 19018 800-869-5566 www.wm.com

Construction and Demolition Waste Haulers

See the "Definitions" Appendix for more details on C & D.

Accurate Recycling

508 E. Baltimore Avenue, Lansdowne, 19050 610-623-7772 www.accuraterecycling.com

American Disposal Systems

4575 Torresdale Avenue, Philadelphia 19124 215-289-8100 www.americandisposalsystems.com

B&M Disposal Co.

4359 Holmesburg Avenue, Philadelphia 19136 215-335-9420 www.dapdisposal.com

D&S Environmental Container Service

2900 E. Orthodox Street, Philadelphia 19137 215-288-5657

John D'Orazio & Sons

2900 E. Bridge Street, Philadelphia 19137 215-743-9440 www.johndorazioandsons.com

Geppert Recycling

4000 Pulaski Avenue, Philadelphia 19140 215-842-0122 www.geppertrecycling.com

Gold Medal Disposal

3323 S. 61st Street, Philadelphia 19153 215-727-7000 www.goldmedaldisposal.com

Republic Services

3000 E. Hedley Street, Philadelphia 19137 610-265-6337 www.republicservicesvalleyforge.com

***Revolution Recovery**

7333 Milnor Street, Philadelphia 19136 215-333-6505 www.revolutionrecovery.com

***Richard S. Burns & Company**

4300 Rising Sun Avenue, Philadelphia 19140 215-324-6377 www.burnscompany.net

Suburban Waste Services

1813 Marsh Rd. Suite C Wilmington DE, 19810 610-497-5763 www.suburbanwasteservices.com

Summit Waste System

8312 State Road, Philadelphia 19136 215-624-7500 www.summitwaste.com

Tri-State Waste & Recycling

4009 Palmetto Street, Philadelphia 19137 215-288-8797 www.tswaste.com

Waste Management

408 S. Oak Avenue, Primos, PA 19018 800-869-5566 www.wm.com

**denotes a hauler that also operates a construction and demolition waste recycling facility.*

Resources for Purchasing Recycling Bins:

The following websites offer a variety of recycling bin products in different styles and prices.

www.cleanriver.com

www.buschsystems.com

www.recycleaway.com

www.barcoproducts.com/outdoor-furnishings/trash-disposal/recycling-containers.html

Recycling Definitions:

Backhaul – The process by which retailers and other waste generators send their materials back to central warehouses via their normal distribution channels rather than a container for on-site pick up by a contracted waste hauler.

C & D – Construction and demolition waste including wood, drywall, block, brick, stone, concrete, asphalt roofing, wire, metals, carpet and padding, vinyl and other bulky plastics, fiberglass, and ceiling tiles.

Dual stream – The recycling system that requires the separation of recycling materials into two streams: paper in one and bottles & cans in the other

E-waste – Electronic waste. The category of materials that includes discarded electrical or electronic devices. As of January 2013, most e-waste may not be discarded via normal municipal solid waste systems, but must be diverted and recycled.

Hazardous waste – Waste that poses substantial or significant threats to public health and the environment and exhibit the following characteristics: ignitability, corrosivity, reactivity, or toxicity. These wastes are often solvents, oils, acids, chemicals and heavy metals, and is a category of waste regulated by the Pennsylvania DEP.

Organic waste – waste that can be composted and kept away from landfills where it decomposes and produces methane, a greenhouse gas. Organics include food scraps, soiled paper products, paper towels/napkins/tissues, waxed cardboard, yard waste, clean wood, and compostable plastics.

Plastics 1-7 - Rigid plastic packaging with any resin type (any number 1 through 7 found in the triangular arrows).

Single stream – The recycling sorting system that sorts a mix of paper, bottles and cans. Single stream is not the mixing of recycling with trash.

Universal waste – a subset of more ubiquitous and less dangerous hazardous waste materials including fluorescent light bulbs, batteries, cathode ray tubes and mercury containing devices; also regulated by Pennsylvania DEP.

Website Resource:

Visit www.PhiladelphiaStreets.com for more information.



Other Sites of Interest:



Mayor's Office of Sustainability -

www.phila.gov/green

The Mayor's Office of Sustainability was created to make good on Mayor Michael Nutter's pledge to make Philadelphia the number one green city in America. The office annually releases Greenworks Philadelphia, a comprehensive report detailing all of the sustainability gains the City of Philadelphia continues to make.



Keep Philadelphia Beautiful -

www.keepphiladelphiabeautiful.org

Keep Philadelphia Beautiful is an independent nonprofit organization dedicated to engaging individuals to take greater responsibility for improving their community environments by providing resources, education, assistance and promotion. Keep Philadelphia Beautiful is focused on litter prevention, recycling education and promotion, and waste reduction.



Keep America Beautiful Recycling at Work campaign -

www.recyclingatwork.org

Recycling at Work is an initiative by Keep America Beautiful to support businesses who want to increase recycling in the workplace. Recycling at Work offers action plans, discounts on recycling bins and other valuable tools to start and expand workplace recycling. A key focus of the program materials and tools is more effective employee engagement.



Sustainable Business Network of Philadelphia -

www.sbnphiladelphia.org

The Sustainable Business Network is a 501(c)(3), membership organization striving to build a just, green and thriving economy in the Greater Philadelphia region. We challenge and support the business community to build profitable enterprises that serve community needs, share wealth and protect the environment.



Professional Recyclers of Pennsylvania -

www.proprecycles.org

The Professional Recyclers of Pennsylvania (PROP) is the Commonwealth's primary resource for recycling education and advocacy. PROP is made up of recycling professionals dedicated to promoting and enhancing public and private recycling programs throughout Pennsylvania.



Recycle Now Philadelphia -

www.recyclenowphiladelphia.org

RecycleNOW Philadelphia supports expanded recycling in the City of Philadelphia in order to improve the environment, economy, and quality of life in our city. RecycleNOW advocates for public policy and direct action to result in more recycling by more people, waste reduction, and a movement towards zero waste.



Fairmount Park Organic Recycling Center (organics only) -

www.phila.gov/parksandrecreation/environment/Pages/RecyclingCenter.aspx



Michael A. Nutter, Mayor
David J. Perri, P.E., Streets Commissioner



PhiladelphiaStreets.com