



**ZERO
STARTS WITH
ONE**

CITY OF PHILADELPHIA
ZERO WASTE AND LITTER CABINET

ONE PERSON. ONE COMMUNITY.
ONE BUSINESS. ONE CITY.



Zero Waste & Litter

CABINET
ACTION PLAN



Letter from the Mayor

My Fellow Philadelphians:

When I took office, I pledged my commitment to make Philadelphia a more beautiful place to live, work, and visit. The plan you hold outlines specific strategies to achieve that goal by ensuring that every neighborhood has litter-free parks, streets, waterways, and public places.

Why Zero Waste? Each year Philadelphia disposes of nearly 1.5 million tons of residential and commercial waste – one ton for every resident. As a city, we spend tens of millions of dollars each year cleaning up short dumping and litter. Although we collectively recycle almost 40 percent of combined residential and commercial waste, we have much work to do to compete with the sustainable cities of the 21st century. If we are to become a greener, more beautiful city, we must dispose of less trash, recycle and reuse more, and embrace new approaches to keeping our shared spaces clean.

The Zero Waste and Litter Executive Order commits Philadelphia to the progressive sustainability goal of Zero Waste by 2035. In doing so, we join other major U.S. cities such as Los Angeles, New York City, and Atlanta, to name just a few. The Order also promotes the use of data-driven practices and rigorous research to identify the most effective ways to tackle these challenges.

But to get there, it will take teamwork. The Zero Waste and Litter Cabinet will coordinate across City departments, partner public agencies, and community and private sector stakeholders to collectively address the litter problem. I hope this report will energize concerned residents like you to join in this effort. Because Zero starts with One – you.

Sincerely,

A handwritten signature in black ink that reads "James F. Kenney". The signature is written in a cursive, flowing style.

James F. Kenney
Mayor, City of Philadelphia

Table of Contents

Executive Summary	4
Zero Waste	5
Litter Enforcement & Cleaner Public Spaces	12
Data	15
Behavioral Science	20
Communications & Engagement	23
Next Steps for the Future	27
Appendix	28
Acknowledgments	48

Philadelphia disposes of nearly 1.5 million tons of residential and commercial waste each year — **one ton for every resident.**

Executive Summary

This action plan is a result of Executive Order 13-16 signed by Mayor James F. Kenney on December 20, 2016. Executive Order 13-16 created the Zero Waste and Litter Cabinet to move the city of Philadelphia toward a Zero Waste and litter-free future. Waste and litter negatively impact the beauty and cleanliness of Philadelphia's rights-of-way, waterways, and other public and private spaces, and landfilling waste creates emissions that contribute to climate change. Reaching the Zero Waste goals set in this plan will move Philadelphia toward achieving the Greenworks vision of becoming a sustainable city for all. City government and taxpayers spend tens of millions of dollars cleaning up and disposing of waste and litter every year. This is a cost that could be significantly reduced by enacting the right strategies to reduce the volume of materials in the city's waste stream.

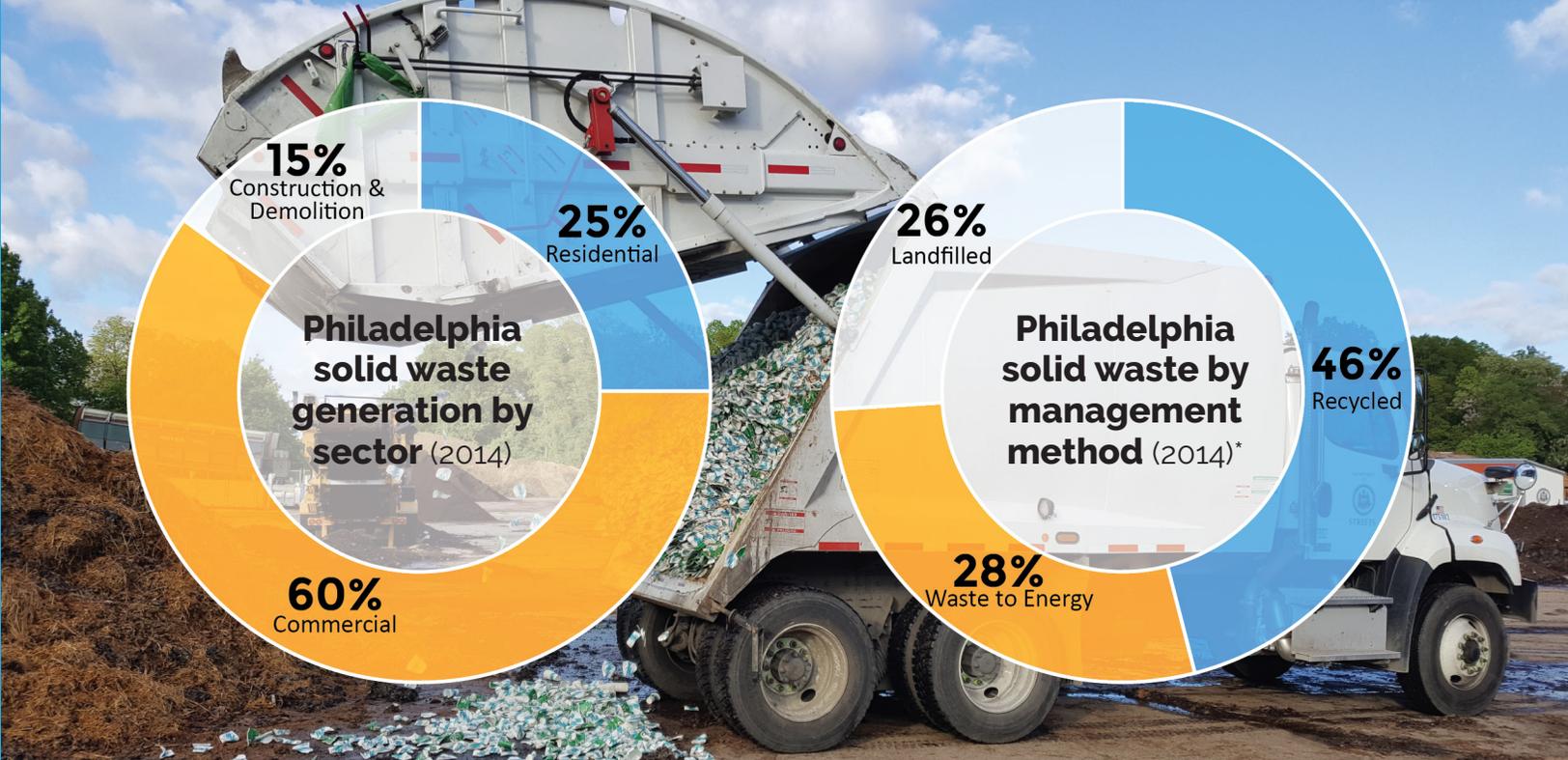
Zero Waste is one policy objective that cities of the 21st century are adopting not only to manage existing waste and litter, but also to prevent the creation of waste and litter. Zero Waste goals have been enacted by major U.S. cities such as New York, Los Angeles, and Atlanta, as well as dozens of municipalities and counties across the country. Philadelphia is proud to join these cities in striving toward the complete phase out of landfills while creating a collective voice to guide markets and industries to change their practices and embrace more progressive waste generation policies.

To accomplish the goals of reducing waste and litter in Philadelphia, the Zero Waste and Litter Cabinet was created as an interdepartmental effort to combat litter, enhance the cleanliness of streets and public spaces, and increase our waste diversion rate toward a long-term goal of Zero Waste entering landfills or conventional incinerators. The Cabinet is chaired by the Managing Director's Office, and its membership includes major City departments and agencies, City Council, and public and private sector stakeholders, all of whom will engage in advancing legislation, policy, and coordinated initiatives to achieve a city that wastes less and is litter-free. This work is developed through Cabinet subcommittees that work on five target areas to execute the implementation of the Cabinet's identified actions:

- Zero Waste
- Litter Enforcement and Cleaner Public Spaces
- Data
- Behavioral Science
- Communications and Engagement

The following action plan is organized around these five subject areas and includes the recommendations, policy objectives, and coordinated initiatives that the Cabinet has identified as the key components to achieving a Zero Waste and litter-free city. While a number of the items in this action plan are informed by new methods to manage waste and litter, other items are currently in existence in some form as programs or policy and require scaling up.

The successful implementation of these recommendations requires coordination, collaboration, and creativity among municipal departments and agencies. But it will also take commitment and civic engagement from our residents and business community. In this plan, you will read about how a business or community group can become a Zero Waste Partner and how residents can use the CleanPHL website to understand the litter conditions in their neighborhoods and access the resources needed to not just clean up litter, but also to prevent litter in the first place. Zero starts with one person, one community, and one city coming together for a Zero Waste and litter-free future. We thank you for joining this mission.



Zero Waste

In a world of growing demand on limited resources, the sustainable management of those resources has become increasingly important. In order to encourage more sustainable practices, many leading cities across the United States have set goals to significantly reduce the amount of waste they generate and dispose of. When considering the life cycles of the materials that make up the products commonly used in daily life, much of what is typically thrown away as trash can be recovered and put to better use through activities like reuse, donation, recycling, and composting. From 1960 to 2014, the amount of municipal solid waste generated in the United States nearly tripled. Of the 258 million tons of municipal solid waste produced in the U.S. in 2014, 89 million tons were recycled or composted, 136 million tons were landfilled, and 33 million tons were combusted with energy recovery.¹

Each year in Philadelphia, residents and businesses dispose of nearly 1.5 million tons of waste — one ton for every resident. Although nearly 40 percent of the city’s combined residential and commercial waste is recycled, Philadelphia still has much more work to do in order to compete among the sustainable cities of the 21st century.²

In the last two decades, Philadelphia has increased its waste diversion rate — the amount of waste being diverted away from landfills and conventional incineration — through city-wide single stream recycling and other waste reduction efforts. However, considerable opportunities exist for the city to further reduce its waste. Philadelphia’s 2014 commercial recycling rate was 45.4 percent, and its residential recycling rate was 20.3 percent, leaving significant room for improvement.³ It is estimated that more than 400,000 tons of organic waste like food scraps and yard waste are thrown away as trash in Philadelphia annually.⁴ Increasing recycling rates and diverting more recoverable materials, such as organic waste, away from landfills would allow Philadelphia to make significant advancements toward achieving its Zero Waste goal.

Reaching Philadelphia’s goal of Zero Waste by 2035 will require a major shift in the way people think about and manage their waste. In order to make this shift, Philadelphians will need new strategies and tools for thinking about and managing the materials they generate in order to reduce the volume of material entering the waste stream.

¹ Environmental Protection Agency. “Advancing Sustainable Materials Management: 2014 Fact Sheet.” November 2016. https://www.epa.gov/sites/production/files/2016-11/documents/2014_smmfactsheet_508.pdf.

² Philadelphia Streets Department. “2016-2025 Municipal Waste Management Plan Draft” August 2016. http://www.philadelphiastreet.com/images/uploads/documents/8-09-16_Draft_Philadelphia_Municipal_Waste_Management_Plan_2016-2025.pdf.

³ Ibid.

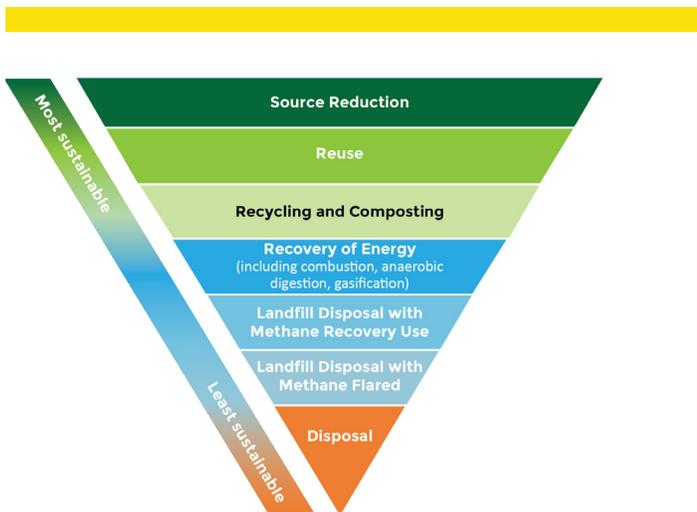
⁴ Ibid

* Includes construction and demolition debris.

The Zero Waste and Litter Cabinet members play an instrumental role in making the necessary policy and operational changes needed to achieve a Zero Waste future. The Cabinet’s Waste Reduction and Diversion Subcommittee works with City departments and the commercial and residential communities of Philadelphia to come to a better understanding of the city’s overall waste diversion rate and to develop strategies for further reducing the waste stream. This subcommittee helps to support the current waste reduction efforts underway by City departments and community stakeholders and aids in the creation of new strategies and the coordination of these efforts across stakeholder groups.

In addition, the Cabinet also works closely with the Solid Waste and Recycling Advisory Committee (SWRAC). This committee is convened by the Streets Department pursuant to Act 101 to assist in crafting the Municipal Solid Waste Management Plan, which all municipalities in Pennsylvania are required to develop every ten years. SWRAC contains many industry and municipal experts who began the process of Zero Waste planning as part of the 2016 Municipal Solid Waste Management Plan. In an inspiring example of collaboration and coordination, SWRAC worked with the Cabinet to develop the following Zero Waste strategy.

Waste Management Hierarchy



Philadelphia’s Zero Waste strategy is guided by the EPA’s waste management hierarchy, prioritizing waste reduction, reuse, recycling, and composting.

Philadelphia's Zero Waste Policy Objective and Principles

The “Zero Waste” approach refers to the management of products and goods as they are generated to minimize the amount of waste that requires disposal by focusing on sustainable production and packaging, maximizing the recyclability and recovery of products and goods generated, and minimizing waste by consumers. This approach is based on industry and government best practices and is guided by the U.S. Environmental Protection Agency (EPA)’s waste management hierarchy.

Unlike many newer American cities, Philadelphia has aging infrastructure, dense urban housing, congested transportation networks, and a high poverty rate. Given these conditions, Philadelphia needs an action plan to define and plan for Zero Waste in a way that is specifically tailored to the city’s unique challenges.

Philadelphia’s long-term “Zero Waste” objective is to fully eliminate the use of landfills and conventional incinerators by 2035. To do this, Philadelphia will reduce waste generation and increase waste diversion by 90 percent by 2035 (based on 2015 waste totals), with the remaining 10 percent utilized as waste to energy.

Philadelphia will achieve this goal by implementing the following Zero Waste principles:

- Advocating for the design and management of products and processes that systematically eliminate the volume and toxicity of waste materials, while recovering these resources without disposing of them through incineration or burial.
- Not sending materials of economic or environmental value, whether for reuse, resale, or recycling, to landfills. Any materials that cannot be recovered or recycled should be utilized as waste to energy. However, the City will strive to make sure that waste to energy materials will represent only 10% of the total city waste stream by 2035.
- Developing a systematic approach to evaluating and managing the flow of resources and waste created by different communities, sectors, and institutions.

- Promoting low-impact or reduced consumption lifestyles.
- Fostering and supporting reuse of discarded materials to stimulate local economic and workforce development.
- Improving access to recycling by increasing opportunities for all Philadelphians to recycle. Evaluate the feasibility of adding materials to expand the City of Philadelphia Recycling Program, including organic material recycling.

The Strategy: How Will We Get There?

To reduce waste and make progress toward Philadelphia’s goal of reaching Zero Waste by 2035, the Cabinet has developed a four-part strategy focused on:

1. Waste Reduction and Diversion in Buildings

Encouraging increased recycling and other waste diversion activities in municipal and commercial buildings through the development of the Building Waste Audit Program

2. Waste Reduction and Diversion at Events

Increasing waste diversion from events through the development of the Zero Waste Events Program to utilize Philadelphia’s robust public events calendar and growing tourism industry to promote our city’s commitment to sustainability

3. Engaging the Public in Waste Reduction and Diversion

Encouraging Philadelphia residents, community groups, non-profit organizations, municipal government, businesses, and institutions to reduce waste, increase recycling and composting, and adopt waste diversion practices — and recognizing these efforts — through the Zero Waste Partnerships Program

4. Zero Waste Pathways

Over the next decade, Philadelphia will be exploring city-wide organic material collection as well as increased access to non-single stream recycling for residents and commercial entities. The Streets Department is currently conducting an “Organics Feasibility Study” to study the investment and systems needed for city-wide organics collection. We plan to utilize our new waste diversion tracking system to identify where there are gaps in what residents and businesses can currently recycle, using that data to help spur investment in areas where recycling diversion systems are needed to fill those gaps.

Building Waste Audit Program

As Philadelphia advances toward a Zero Waste future, the City must ensure that municipal and commercial buildings first satisfy existing regulations pertaining to recycling and waste management. Executive Order 5-96, which established a recycling policy for municipal buildings and employees, requires all municipal buildings to offer recycling to employees and constituents. However, many municipal buildings are not in full compliance with the executive order.

Additional compliance efforts must also be targeted to the commercial sector. According to the Streets Department’s Office of Recycling, only 22 percent of commercial buildings have completed a Commercial Recycling Plan, which is required under Act 101 and Philadelphia Code Sections 10-717 and 10-724.

The Building Waste Audit Program will serve as a guide for municipal and commercial buildings to better understand their waste generation and their mandated and voluntary methods for waste diversion. A reporting process has been developed and will involve submission of a digital form identifying each facility’s generated waste materials and collection service providers, as well as options for monthly reporting to track progress toward Zero Waste. All of the information collected will be stored in a City database. Please see Appendix A to view this reporting form. The City must lead by example, and therefore building waste audits will begin with municipal buildings based off of existing policy established through Executive Order 5-96. Once this program has been developed and implemented in municipal buildings, the current Commercial Recycling Plan will be adapted to reflect the information collected through the Building Waste Audit Program.

Philadelphia’s long-term “Zero Waste” objective is to fully eliminate the use of landfills and conventional incinerators by 2035. To do this, Philadelphia will reduce waste generation and increase waste diversion by 90 percent by 2035 (based on 2015 waste totals), with the remaining 10 percent utilized as waste to energy.

The Building Waste Audit Program will provide tools and resources while executing a five-step process:

1. Ensure that all municipal buildings have a recycling plan and use it to report recycling activity

A Building Waste Audit Guide is in development to help building managers better understand recycling requirements, opportunities for waste diversion, and the waste audit process. This guide will list disposal options for materials that are mandated to be recycled or specially disposed of by municipal/state law, including:

- Solid Waste
- Single Stream Recycling
- Electronic Waste
- Construction and Demolition Debris
- Universal Waste
- Waste Cooking Oil and Used Motor Oil
- Medical Waste
- Hazardous Waste

2. Enhance compliance by identifying and training Recycling Ambassadors

The Recycling Ambassador Program was established through Executive Order 5-96. One or more staff members in each municipal building was identified and recruited to act as a Recycling Ambassador to educate fellow building staff members on proper recycling and to ensure compliance with the Executive Order 5-96 requirement that all municipal buildings must provide recycling for staff and constituents. The Cabinet will re-launch a Recycling Ambassador recruitment effort and train each Ambassador on the following:

- How to use the Building Waste Audit Guide to analyze what materials are being generated and identify methods for diversion
- How to use the digital form to report recycling activities
- How to publicly post the recycling activities form in the building
- Resources available/needed for bringing each building into compliance
- The Streets and Walkway Enforcement and Education Program (SWEEP) inspection system “Report Card Rating”

3. Increase diversion to achieve Zero Waste

The Building Waste Audit Guide will include guidelines on how to reduce and divert other materials in addition to those mandated by municipal/state law to be recycled or specially disposed of, such as:

- Organic Waste
- Plastic Bags
- Polystyrene
- Wood
- Metal
- Clothing
- Edible or Unopened Packaged Food

The Building Waste Audit digital reporting form will include an optional Zero Waste Reporting section for facility managers who elect to learn more about opportunities for waste diversion and report on diversion practices at their facilities. Building managers will have the option to report digitally on their waste generation and diversion practices on a monthly basis to become and maintain status as Zero Waste Partners.

4. Create Zero Waste Partners

Should a municipal building manager implement Zero Waste practices in the building’s waste management operations, as documented through the online reporting system and database, the City will recognize the building as a Zero Waste Partner. Please see the Zero Waste Partnerships Program section of this plan for more information.

5. Expand audit program to all commercial buildings

The City will develop, launch, and collect data on the municipal program during Fiscal Year 2018, adapt the current Commercial Recycling Plan to reflect the information collected through the Municipal Building Waste Audit Program, and plan to launch a new Commercial Building Waste Audit Program in Fiscal Year 2019.



The Waste Watchers Program provides a three-bin system that separates landfill waste, recycling, and compost.

Event organizers will have the option to submit a digital form to report on their event's waste management practices and waste diversion rate and learn about further opportunities for waste diversion. Please see Appendix B to view this form. Should an event organizer implement Zero Waste practices in the event's waste management operations, as documented through the online reporting system and database, the City will recognize the event as a Zero Waste Partner. Please see the Zero Waste Partnerships Program section of this plan for more information.

Zero Waste Partnerships Program

A Zero Waste future for Philadelphia will not happen without commitment and a coordinated effort from the entire city. The Zero Waste Partnerships Program will encourage Philadelphia residents, community groups, non-profit organizations, municipal government, businesses, and institutions to reduce waste, increase recycling and composting, and adopt waste diversion practices — and recognize them for their efforts. This program is currently being developed by SWRAC, the Streets Department, and the Waste Reduction and Diversion Subcommittee, and will include the following features:

- **Residents**
Plans are in development to expand the existing Philadelphia Recycling Rewards Program — rebranded as Waste Watchers Rewards — to reward waste reduction activities in addition to current recycling rewards. Incentives, technical assistance, and educational opportunities will be available to help residents engage with and be recognized for their Zero Waste efforts.
- **Community-based Organizations**
Community-based organization partnerships will improve education and outreach to better promote Zero Waste strategies within communities. Zero Waste and Litter Community Grants will be available through the Streets Department to provide financial assistance for eligible community Zero Waste and litter initiatives that increase community access to recycling and ensure greater community participation in picking up and preventing litter.
- **Municipal Government, Non-profit Organizations, Businesses, and Institutions**
The Zero Waste Partnerships Program will allow local organizations, businesses, institutions, and City government to be recognized for their efforts to reduce waste, divert material from the waste stream, and adopt green purchasing practices. Formally recognized organizations and businesses can promote themselves as exemplary Zero Waste Partners and help the City benchmark progress and best practices. This promotion of Zero Waste practices allows businesses and the City to leverage sustainability trends in consumer buying behavior.

Read more about plans to engage the public in Zero Waste and how the Zero Waste message will be communicated across platforms in the Communications and Engagement section of this action plan.

Zero Waste Events Waste Generation Calculator Tool: Instructions [GO TO CALCULATOR TOOL](#)

This Waste Generation Calculator Tool is designed to help you estimate how much waste your event generated to more easily understand opportunities for recycling and waste diversion. Reducing trash and increasing recycling and donations from your event can help you to prevent valuable resources from entering landfills and can bring you closer to becoming a Philadelphia Zero Waste Partner. Use this tool to complete the Zero Waste Events Waste Diversion Report form. [Go to Zero Waste Events Waste Diversion Report form.](#)

HOW DO I USE THIS TOOL?

Event organizers often do not have the ability to weigh their waste precisely and need to make estimates of the amounts generated. Use this calculator tool to estimate the number of tons of material your event generated using information about collection container sizes and the event's levels of collection service. To use this tool, you will need to know the following:

- Which materials from your event were recycled or donated
- The volume of the collection container (dumpster, trash can, trash bag, etc.) used for each material (in cubic yards or gallons) *(Learn more about determining the volume of your collection container.)*
- The number of times each material was picked up from your event
- The number of containers used per pickup

You may wish to use the "Waste Log" tab to keep track of your event's materials generation and pickups.

[GO TO WASTE LOG](#)

After tracking your event's materials generation, go to the "Calculator" tab and enter your data to calculate the number of tons of each material your event generated. After using the tool, go to the Zero Waste Events Waste Diversion Report online form and copy the values from Column G in the calculator into the appropriate rows in the data entry matrix under "Tons Collected from Event" to calculate your event's waste diversion rate before submitting the form.

Definitions of the terms included in the calculator tool are listed below. If you need help as you are using the tool, click on the column headings to be directed to these definitions. In the calculator tool:

-  cells are the only cells where you should type information.
-  cells are drop-down lists where you should choose an option from those listed.
-  cells will automatically be filled in with calculated values based on the information you enter. You should not type any information into these cells.

[GO TO CALCULATOR TOOL](#)

DEFINITIONS OF TERMS USED WITHIN THE CALCULATOR TOOL

[Instructions](#) | [Calculator](#) | [Waste Log](#) | [FAQ](#) | [Contact Us](#) | [Privacy Policy](#) | [Terms of Use](#)

Educational tools and resources will be provided to help event organizers better understand their event's waste generation and opportunities for diversion, including a Guide to Zero Waste Events and a tool to help calculate event waste generation totals. That calculator tool is pictured here.



At the 2017 Broad Street Run, recyclables (in blue bags) were separated from compostable materials (in green bags) and trash through the Waste Watchers Program.



Using the Keep Pennsylvania Beautiful metric that estimates the total municipal costs for cleaning illegal dumping at **\$619 per ton, illegal dumping equates to \$8,124,375 in costs to city taxpayers annually.**⁷

LITTER ENFORCEMENT & Cleaner Public Spaces

Although progressing toward a Zero Waste goal by 2035 is a compelling and exciting opportunity to enhance Philadelphia's environmental sustainability, the Cabinet also recognizes the significant shorter-term, more immediate challenges posed by the waste that presently exists. Like many large, dense cities, Philadelphia has struggled to fight litter and illegal dumping for generations. Zero Waste cannot be achieved when neighborhood streets are littered with trash and materials that could be recycled. The term "Filthadelphia" was used to describe the streets of the city as far back as 1919.⁶ Now, nearly a century later, Philadelphians continue to spend enormous amounts of time, money, and energy to combat the persistent challenges of litter and illegal dumping:

- According to Fiscal Year 2016 statistics, the City's Community Life Improvement Program (CLIP) removed 1,600 tons of debris from 128 heavily dumped lots, and the Streets Department removed 11,525 tons of material from 921 lots.
- Using the Keep Pennsylvania Beautiful metric that estimates the total municipal costs for cleaning illegal dumping at \$619 per ton, illegal dumping equates to \$8,124,375 in costs to city taxpayers annually.⁷

- This financial cost is in addition to the tens of thousands of staff hours spent by employees of the Streets Department, Philadelphia Parks and Recreation, CLIP and a number of other agencies cleaning up litter and illegally dumped household trash — time that could otherwise have been spent delivering core services to the public.

In addition to these powerful statistics, pictures taken throughout the city clearly illustrate the severity of this problem in Philadelphia's neighborhoods. The city simply cannot provide a strong quality of life in all neighborhoods if such dumping continues.

The Litter Enforcement and Cleaner Public Spaces Subcommittee reviews the current enforcement, fines, and penalties for littering and short dumping in Philadelphia. The subcommittee aims to better understand what enforcement strategies most effectively combat litter and how to best coordinate enforcement efforts. This subcommittee also uses data collected from the Data Subcommittee to determine the most effective strategies for waste management and collection in Philadelphia's public realm.

12 ⁶Dent, Mark. "No litter in Philly: Inside the plan for zero waste by 2035." Billy Penn. April 05, 2017. Accessed June 16, 2017. <https://billypenn.com/2017/04/05/no-litter-in-philly-inside-the-plan-for-zero-waste-by-2035/>.

⁷MSW Consultants. Statewide Illegal Dumping Cost Research. Report. Keep Pennsylvania Beautiful . August 2014. http://www.keeppabeautiful.org/wp-content/uploads/2016/09/KPB-Statewide-Illegal-Dumping-Cost-Research_Final_8-20-2014.pdf.



The Litter Enforcement and Cleaner Public Spaces Subcommittee's vision is to employ a combination of punitive and proactive approaches to create lasting behavior change among residents, businesses, and visitors. The subcommittee used the following "Five Steps to Behavior Change," as developed by Keep America Beautiful, to develop its final recommendations and plan.⁸

1. Get the facts

- What data is needed to show what needs to change?

2. Prioritize behavior

- Target the who, what, where, why, and how to make a solid, yet flexible and responsive (but not reactive) plan.

3. Develop and implement an action plan

- Consider actions, audience, and execution.

4. Evaluate impacts

- Consider environmental, economic, and social impacts.
- What is most successful? What can be improved? What needs to go?

5. Provide feedback

- Use these five steps to utilize the action plan internally within City government operations, and include public stakeholders in implementing these plans within communities.

Working within that framework, the subcommittee conducted hours of review through meetings and one-on-one interviews with City departments and agency leadership to evaluate every existing regulation, policy, and ordinance relating to litter and cleaner public spaces in Philadelphia. Each of these regulations,

policies, and ordinances was evaluated through the following three principles for determining effectiveness:

• **Can we do it?**

- What are the legal needs and barriers to do this?
- What are the operational needs and barriers to do this?
- What are the public needs and barriers to do this?
- What are the funding, resources, and staff needs to do this?

• **Will it work?**

- Will it yield anticipated results with public behavior change through public outreach?
- Will operations and field staff buy in to ensure full enforcement?
- Will we have concrete data to show effectiveness?

• **Is it worth it?**

- Will the funding, resource, and staffing investment be worth it?
- Will it affect the larger picture?

The following 31 recommendations for enhanced regulations, policies, and ordinances were all considered according to these three criteria and were determined through Cabinet consensus to be the most effective steps to move Philadelphia forward to becoming a litter-free, world-class city. These recommendations are divided into two categories — litter enforcement and cleaner public spaces — and separated into short-term and long-term goals. Please consult Appendix C of this action plan for a full evaluation of these recommendations.

⁸Youth Guide to Service and Project-Based Learning. Report. Keep America Beautiful. Summer 2015. https://www.kab.org/sites/default/files/News%26Info_Publications_YouthGuidetoServiceandProject-BasedLearning.pdf

Litter Enforcement

Short-term Priorities

1. Improve tire regulation and enforcement
2. Include construction and demolition waste plans on all Licenses and Inspections (L&I) construction, demolition, and alterations permits
3. Coordinate and improve short dumping surveillance
4. Increase short dumping fines
5. Impose mandatory community service hours for short dumping diversion programs
6. Impose seizure of vehicles involved in short dumping crimes
7. Increase and streamline illegal dumping cases in court system
8. Coordinate education and enforcement of the requirements of the waste bin law for all commercial establishments selling prepared or prepackaged food
9. Increase zoning code enforcement of interior trash storage for new construction or variances
10. Identify and enforce dumpster-free streets
11. Increase enforcement and education on improper waste set outs
12. Increase enforcement of \$300 moving violation for throwing trash out of a window
13. Mandate that all circulars are designed as door hangers
14. Revise Section 9-604 (5)(6)(7)(8) of the Philadelphia Code regarding hauler reporting

Long-term Priorities

1. Create a formalized environmental crimes unit within Philadelphia Police Department Neighborhood Services Unit
2. Develop monthly Code Violation Notice (CVN) reports for issuing departments
3. Ban plastic bags
4. Coordinate commercial waste pickups with commercial waste haulers
5. Create a 311 "Street Trash" ticket
6. Improve coordination with Scrap Yard Task Force
7. Include an abatement fine when CLIP abates vacant lots

Cleaner Public Spaces

Short-term Priorities

1. Increase enforcement and education of mattress disposal regulations
2. Determine the most strategic placement of public waste receptacles and map their locations
3. Study increased access to lidded residential recycling bins
4. Increase outdoor recycling at parks and recreation sites
5. Increase removal of illegal clothing donation bins
6. Expand access to sanitation convenience centers
7. Construct trash corrals for recreation centers
8. Increase proactive solutions for illegal sign abatement

Long-term Priorities

1. Consider restoration of street sweeping
2. Increase support of temporary and long-term community solutions to activate and secure vacant lots



Data

2007 City of Philadelphia Litter Index Scoring Metrics

Rating 1-4	Description
1.0-1.5: No litter. A slightly littered area that has less than 5 pieces on the entire block.	Neighborhood streets are completely free of litter.
1.5-2.0: Littered. Between 5 and 9 pieces of litter on a block or a designated area.	Neighborhood streets have scattered areas of loose litter along curbsides and streets, gutters and fence lines.
2.1-3.0: Excessively Littered. Between 20 and 29 pieces of litter on a block or designated area.	Streets and sidewalks consistently littered throughout the area. Heavy concentrations of litter along vacant lots, fence lines, abandoned houses and along major thoroughfares.
3.1-4.0: Extremely Littered. More than 30 pieces of litter and other trash related issues on a block or a designated area.	Illegal Dumping, streets and sidewalks consistently littered through out the area.

Using these scoring metrics, the Streets Department utilized field sanitation staff to take paper surveys of conditions solely on City-owned rights-of-way based on randomized routes organized by police districts. The resulting information led to the development of the 2009 data map for the city featured on the following page.

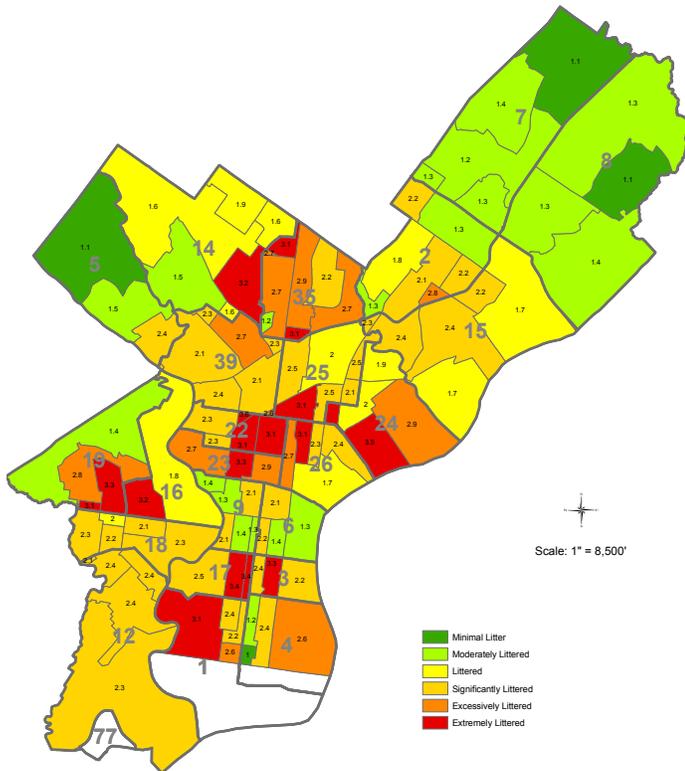
In order to achieve the objectives set forth in the Zero Waste and Litter Enforcement and Cleaner Public Spaces sections of this action plan, Philadelphia must use data to guide its policy and investment decisions and measure their effectiveness.

The Data Subcommittee uses collaborative and innovative data management processes and tools to collect and analyze existing waste data from each department represented in the Cabinet. While this subcommittee will be working on the cumulative data needs of the Cabinet, it is currently working on two very important data initiatives — city-wide litter indexing and city-wide waste diversion calculation and tracking.

City-Wide Litter Indexing

The first city-wide litter indexing was conducted by the Streets Department in 2007 under the leadership of then Deputy Commissioner Carlton Williams. This index was based on metrics derived from the Keep America Beautiful Community Appearance Index.

City of Philadelphia Litter Index July 2009



While this was an extremely successful and worthwhile program, staffing and technological limitations made it difficult for the Streets Department to conduct a broader index and compile a larger data set. With the support of the Cabinet and the Data Subcommittee, the City of Philadelphia Litter Index has been redeveloped into a map-based survey of the litter conditions of the city’s streets, parks and recreation sites, public school sites, green stormwater infrastructure, riverways, vacant lots, transit stations, and other publicly-owned rights-of-way. The litter indexing is conducted by staff in the departments responsible for the aforementioned City assets and property — the Streets Department, CLIP, the Department of Parks and Recreation, the School District of Philadelphia, Philadelphia Water Department, and the Southeastern Pennsylvania Transportation Authority (SEPTA). The index is digitized using cloud-based tablet surveys developed by the Office of Innovation and Technology (OIT) using map-based GIS locations to ensure accuracy. The departmental data is managed by department IT and data analytics staff, and the overall data is aggregated by OIT.

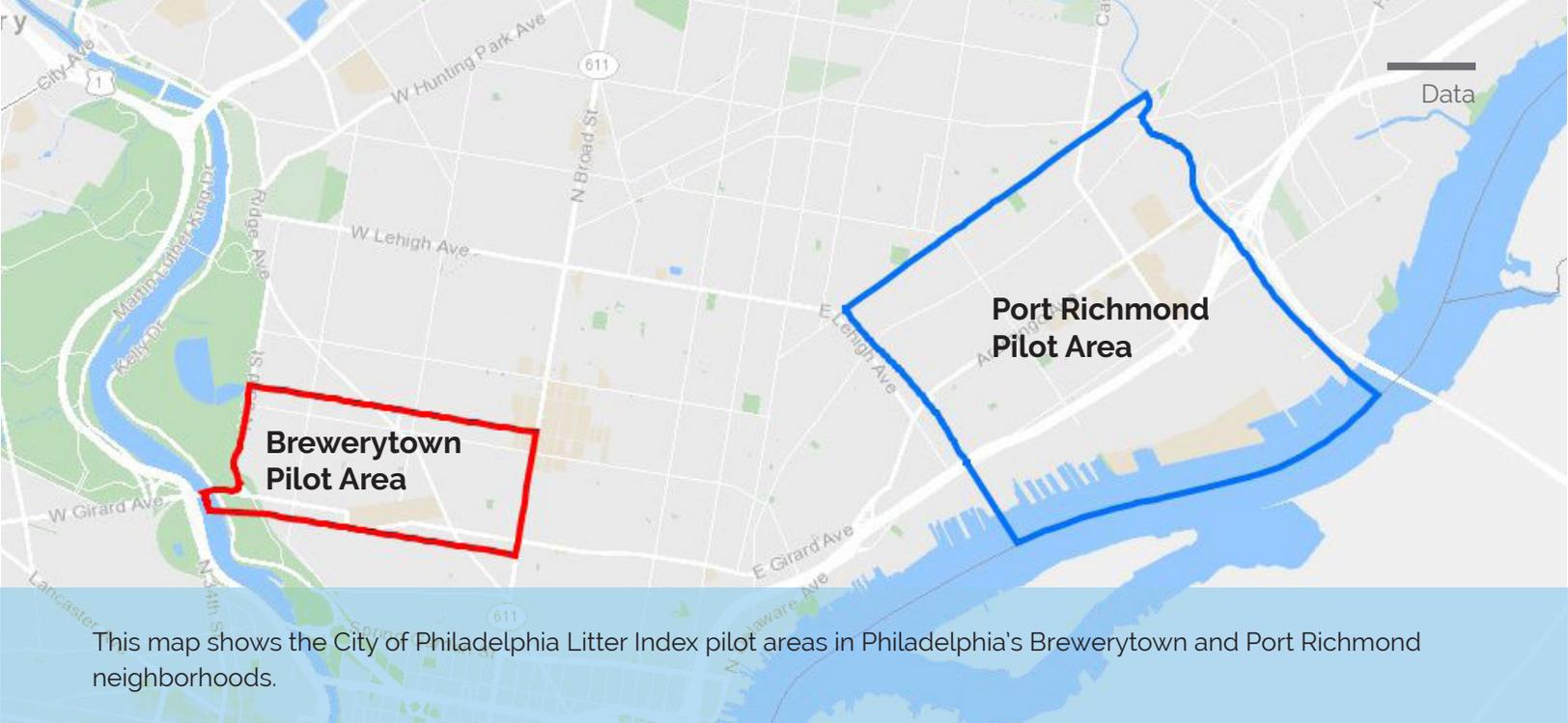
Along with counting each piece of litter on a City asset or property, the surveyors also provide a litter rating on a scale of one to four based on Keep America Beautiful metrics. The rating system is as follows:

- 1: Little to no litter
- 2: Litter in the amount that can be collected by a single person
- 3: Litter in the amount that would require collection by a team of people
- 4: Litter in the amount that would require collection by a large team of people and/or heavy machinery

The survey also includes a “Requires Immediate Attention” button that automatically sends a service request to 311 with all pertinent information. This button is used for ratings of 4 and/or heavy illegal dumps that are either in the right-of-way or are causing unsafe conditions.

The revamped City of Philadelphia Litter Index was piloted in Philadelphia’s Brewerytown and Port Richmond neighborhoods in spring 2017. The Brewerytown pilot area’s borders stretched from Broad Street to 33rd Street and Montgomery Avenue to Poplar Street. The Port Richmond pilot area’s borders stretched from Somerset Avenue to Castor Avenue and Kensington Avenue to the Delaware River.

Litter Index Survey



This map shows the City of Philadelphia Litter Index pilot areas in Philadelphia's Brewerytown and Port Richmond neighborhoods.

The pilot litter indexing was conducted by five of the participating departments during two trial phases of March 1, 2017 to April 15, 2017 and May 15, 2017 to June 15, 2017. SEPTA conducted its pilot independently from June 15, 2017 to July 15, 2017. During this time, the Data Subcommittee compiled feedback from field staff, department data analysis staff, and IT staff to refine the survey and process for collecting information. All of this information has led to a final version that will be expanded city-wide by all six participating departments on the assets they are responsible for monitoring. Going forward, the City of Philadelphia Litter Index survey will take place twice per year.

How Litter Index Data Will Be Used

The Data Subcommittee intends to use the City of Philadelphia Litter Index data to create more coordinated responses to litter conditions among the departments participating in the litter indexing. The data will be used to:

- Analyze areas where a majority of assets were scored “4,” and create coordinated responses with appropriate departments and agencies
- Analyze areas where a score spiked due to one asset with a “4” rating, and create coordinated responses with appropriate departments and agencies
- Compare areas with ratings of “3” and “4” in regards to 311 calls, L&I violations, and other datasets to analyze the need for increasing City service outreach, increased enforcement, and increased education

The results of the City of Philadelphia Litter Index datasets from the six participating departments will be aggregated into smaller segments of city blocks to inform residents through a searchable database of the litter conditions in their neighborhoods and surrounding areas. This data will be made available through the Clean PHL website. More information on this website can be found in the Communications and Engagement section of this plan.

Calculating Philadelphia's City-wide Waste Diversion Rate and Tracking Progress

In order to identify actions that Philadelphia can take to reduce waste and improve the city-wide waste diversion rate, the city's current baseline waste diversion rate must first be established. Providing an accurate measurement of Philadelphia's city-wide waste diversion rate will require the City to capture information about its waste stream that has not been included in previous estimates. To do this, a new system has been developed to systematically track Philadelphia's waste stream in its entirety.

The City's inventory of the local waste management system is being updated to include new materials and processes for which there are currently no reporting mechanisms in place. Information about the weight of materials handled by recycling facilities and service providers in Philadelphia is currently reported to the Streets Department, as required by Act 101. Data about reuse, composting, and other methods of diversion obtained through the new system will be combined with Act 101 reporting data on the recycling industry to form a more complete picture of Philadelphia's waste stream for the first time.

Materials Included in City-wide Waste Diversion Rate Calculation

ORGANICS



Yard & leaf waste
Renderings
Pre-consumer food waste
Post-consumer food waste
Pre-consumer recovered food
Post-consumer recovered food

METALS



Aluminum cans	Mixed metals
Steel cans	Motor vehicles, engines & more
Ferrous metals	White goods
Non-ferrous metals	

GLASS



Clear
Colored
Mixed
Window glass

PAPER/CARDBOARD



Office paper (all high grades)
Newsprint
Magazines/catalogs
Mixed or other paper grades
Composite paper & plastic

PLASTICS



PET	PP
HDPE	PS
PVC	Mixed or other
LDPE	Plastic film

OTHER MATERIALS



Single stream recycling	Housewares
Commingled recycling	Furniture
Polystyrene	Mattresses
Tires	Paint
Printer cartridges	Other source-separated streams

HOUSEHOLD HAZARDOUS WASTE



Antifreeze	Fluorescent lamps
Batteries (lead-acid)	Motor oil
Batteries (Ni-Cad/NiMH)	Oil filters
Batteries (lithium)	Oil paints
Batteries (other)	Other household hazardous waste

NON-DIVERTED SOLID WASTE



City-collected municipal solid waste	Universal waste
Privately-collected municipal solid waste	Pharmaceutical waste
	Biomedical waste

WOOD WASTE



Pre-consumer wood waste
Post-consumer wood waste

TEXTILES



Textiles (clothing)
Textiles (other textiles)

ELECTRONICS & APPLIANCES



Covered devices
Non-covered devices

CONSTRUCTION & DEMOLITION DEBRIS



Non-hazardous C&D waste
Hazardous C&D waste
Carpet
Asphalt

To determine Philadelphia's city-wide waste diversion rate, the following formula will be used:

$$\text{Waste Diversion Rate (WDR)} = \frac{\text{Tons Diverted}}{\text{Tons Generated}} \times 100$$

Tons Diverted = Tons Donated + Tons Repaired/Resold + Tons Reused/Upcycled + Tons Recycled (including mail-in, drop-off, or take-back programs) + Tons Composted + Tons Fed to Animals + Tons Incinerated (for energy recovery) + Tons to Engineered Fuel Product

Tons Generated = Tons Landfilled + Tons Incinerated (conventional) + Tons to Professional Disposal (of regulated materials or proprietary technology) + Tons Diverted

Processes Included in City-wide Waste Diversion Rate Calculation

DIVERSION PROCESSES



Donate
 Repair/Resell
 Reuse/Upcycle
 Recycle
 Mail-in or drop-off only recycling program
 (not by manufacturer)
 Manufacturer take-back (recycling)
 Compost
 Animal feed
 Incineration (energy recovery)
 Engineered fuel product

DISPOSAL PROCESSES



Landfill
 Incineration (conventional)
 Professional disposal of regulated materials
 Manufacturer take-back (disposal)

After careful study and evaluation of Philadelphia's waste stream, lists of materials and processes to include in the city-wide waste diversion calculation were developed. These lists encompass most of the materials generated in the municipal, commercial, and industrial sectors in Philadelphia and the methods through which they are diverted or disposed.

Many of the materials and processes included here, such as organic waste collected by local compost haulers, donated materials, and some materials processed by small recycling businesses, have not been included in previous city-wide waste diversion rate estimates. The Cabinet will utilize this set of materials and processes to build a database of haulers, recycling facilities, and donation facilitators. Within this database, waste generation and diversion in Philadelphia's commercial, residential, and combined sectors will be tracked. Database participants will be contacted and asked to report on the weight of material they process annually under the new reporting system. These weights will be used to calculate the city-wide diversion rate using the waste diversion rate formula.

This new and more comprehensive measurement of Philadelphia's waste diversion rate and yearly benchmarking will allow City officials to identify gaps in capacity to divert specific materials, determine opportunities for waste diversion, and consider different options to determine the most effective strategies for diverting waste and advancing toward Philadelphia's ambitious goal of Zero Waste by 2035.

Next Steps

In addition to the city-wide litter indexing and city-wide waste diversion calculation and tracking, the Data Subcommittee will also work to address any other data needs of the Cabinet and act as a convener to coordinate and collectively analyze all department and public data needed to abate litter and lead the city to a Zero Waste future.



Behavioral Science

The City cannot effectively address its litter problems simply by cleaning up more trash. Instead, litter must be prevented from occurring in the first place. In order to prevent litter effectively, there is a need to understand the “who,” “what,” “how,” and “why” of litter. If one were to ask a field staff employee from the Department of Parks and Recreation or the Streets Department “how” and “why” litter happens, or “who” litters, he or she is certain to receive mixed responses. While institutional knowledge rooted in observation and experience is extremely valuable and often accurate, proven scientific methods must also be utilized in order to definitively identify and address the problem. Scientific methods ensure that observation and experience are validated with data in order to not only clean up litter, but also prevent it before it occurs. This approach is an extension of the data-driven methods the Cabinet is using to inform policy, legislation, and initiatives that will lead to a Zero Waste and litter-free city.

The Behavioral Science Subcommittee works with outside experts from Philadelphia’s local academic institutions to develop and execute studies that analyze what motivates individual actions and how well-designed environmental nudges can lead to less littered areas. The goal of this effort is to better inform public messaging and initial neighborhood strategies for litter reduction and increase awareness of waste collection systems. In partnership with GovLabPHL, an initiative hosted by the Mayor’s Office of Policy, the Cabinet worked with researchers from Temple University, Swarthmore College, and the University of Pennsylvania to conduct the following two pilot studies in the spring of 2017.

Lidded Recycling Bin Distribution

Objective: One commonly cited barrier to residential recycling is the availability of recycling bins. At an information session (coordinated by the Department of Parks and Recreation, the Managing Director’s Office, and Keep Philadelphia Beautiful) at Wister Playground in November 2016, participants’ most common suggestion to increase their recycling participation was to make bins more accessible. If enhancing the accessibility of recycling bins encourages greater recycling participation, the City will incur lower costs since disposing of recyclable material is much cheaper than disposing of rubbish. Additionally, in response to reports of open-top

recycling bins contributing to litter due to items being blown along the street while awaiting pickup, the Cabinet chose to distribute lidded recycling bins and evaluate the impact of that distribution on recycling behavior and litter conditions.

Methodology and Data Collected: This pilot involved coordination between the Streets Department, the Commerce Department, the Department of Parks and Recreation, the Mayor’s Office of Policy, and the Managing Director’s Office. A focused recycling bin distribution was tested to assess its impact on recycling participation and littering. In April 2017, lidded residential recycling bins were distributed at local recreation centers in two neighborhoods — Port Richmond and Brewerytown. These neighborhoods were chosen because baseline litter index data was available.

Using recycling and rubbish collection route maps provided by the Streets Department, two routes were selected in each neighborhood to act as the treated routes, and surrounding routes were identified as the control routes. The treatment routes were chosen based on the number of households on the routes as well as proximity to the recreation centers where the bin distribution would occur. Historical tonnages for rubbish and recycling were collected for both the treated and control routes. Flyers were distributed to residents on the treated routes one week prior to make them aware of the bin distribution. Bins were available one Saturday afternoon and were provided to all residents that came to the pickup location, regardless of whether they were on the treatment routes. Their names, addresses, and emails were recorded, and only one bin was given per household. 840 bins were distributed in Port Richmond and 704 bins were distributed in Brewerytown for a total of 1,544 bins distributed. Canvassing efforts and bin distribution were performed by volunteers recruited through Serve Philadelphia. Residents who picked up a bin were given surveys asking them to explain why they needed a new bin and to rate their experience with having an extra bin or with having a bin with a lid. These surveys are being compiled and will factor into the final report to be prepared for the Cabinet by the university behavioral scientist partners. Surveys were also administered to the sanitation workers on the treated routes to gauge their rating of the time and labor spent picking up recycling that was now lidded as well as their observations on the recycling contamination and litter conditions on these routes.

Time Frame: Recycling bins were distributed in April 2017. Recycling and rubbish tonnages were measured for five weeks following the distribution to evaluate the impact of the distribution on recycling participation and were compared to historic recycling and rubbish tonnage data. Litter index measurements collected prior to the distribution (March to April 2017) and following the distribution (May to June 2017) will be compared to assess the impact of the distribution on local litter.

Anticipated Outcomes: The Cabinet anticipates that the findings from this pilot will inform decisions within City government regarding residential recycling initiatives. For example, the results may help assess the impact of local, targeted distribution of recycling bins on residential recycling participation. Philadelphia residents often report that recycling bins are challenging to obtain, creating a barrier to their participation in recycling programs. Local bin distributions provide one means to address this issue. However, such distribution efforts involve both the direct cost of the bins and the City resources deployed to facilitate the distribution. By evaluating the impact of this distribution on recycling participation rates, the present pilot helps calculate the financial benefit of this distribution (as disposal of recycling is less costly than rubbish disposal — and indeed can generate revenue). At a more subjective level, initial feedback from participating residents has been extremely positive, suggesting that these types of initiatives are viewed favorably by the community.

Strategic Placement of Public Waste Receptacles

Objective: In 2011, New York City began experimenting with removing trash receptacles from select public transportation stations. While this effort was initially praised, as it seemed removing the receptacles counter-intuitively decreased litter at the stations, recent audits have revealed that the removal actually increased litter and track fires at the affected stations.⁹ There has been growing interest in the city of Philadelphia and other municipalities regarding the pros and cons of introducing similar changes. Through this experiment, the Cabinet sought to assess the influence of both increasing and decreasing the number of available trash receptacles in public spaces on citizens’ waste disposal practices.

⁹ MTA/NYC Transit - Trash Can Free Stations Pilot Program Report 2014-5-29. Report. State of New York Office of State Comptroller. September 22, 2015. <https://www.osc.state.ny.us/audits/allaudits/093015/14s29.pdf>.



Methodology and Data Collected: This pilot involved coordination between the Streets Department, the Commerce Department, the Department of Parks and Recreation, the Mayor’s Office of Policy, the Managing Director’s Office, and four local community development groups. Four parks and four commercial corridors located across northern Philadelphia were targeted in this pilot. From May 2017 to July 2017, waste receptacles were systematically added and removed at each location. Each of these eight locations experienced at least one increase in the number of available receptacles, at least one decrease in the number of available receptacles, and at least one period where the number of available receptacles was left unchanged (to serve as a baseline or control within each location).

Each treatment period lasted approximately two weeks. Receptacles were provided or removed by the Streets Department and the Department of Parks and Recreation. Staff from the Commerce and Parks and Recreation Departments oversaw the data collection process. During this time, data was collected at each site regarding the amount of litter and short dumping observed, the trash collected as litter, the trash collected as properly disposed rubbish from available bins, the staff hours spent cleaning litter, and the comments received from citizens regarding the changes.

Time Frame: Data was collected from May 2017 to July 2017.

Anticipated Results: The Cabinet anticipates that the findings from this pilot will inform decisions within City government regarding how best to deploy waste receptacles in public areas. The results are anticipated to help inform decisions regarding where, when, and whether to alter the number of available public waste receptacles in order to minimize littering in the city. The present pilot also includes several means to assess the value of changes in the number of waste receptacles, as the impact can be measured with respect to staff hours spent cleaning litter, littering and short dumping observed, and citizen responses to the changes. At a more subjective level, initial feedback from citizens and community development partners has been positive following increases and negative following decreases in waste receptacle availability.

The Cabinet’s goal is to utilize the information from these two pilots to scientifically inform the City’s investments and policies regarding the distribution of lidded recycling bins to residents and the most strategic placement of public waste receptacles. The Cabinet also hopes to build off the successes, processes, and lessons learned from these two pilots to continue learning about behavior as needed. In fall 2017, the Cabinet hopes to evaluate the effectiveness of litter and waste reduction messaging campaigns with the hope that the success of these evaluations, as well as continued success of the GovLabPHL program, will allow the City to better understand the effectiveness of many components of this action plan.

ZERO STARTS WITH ONE

CITY OF PHILADELPHIA
ZERO WASTE AND LITTER CABINET



Communications & Engagement

In support of the Zero Waste and Litter Cabinet’s goals and objectives, the Streets Department launched a new advertising campaign in spring 2017. The campaign’s tagline, “Zero Starts With One,” encapsulates the ethic that a Zero Waste future for Philadelphia will not happen on its own. It will take commitment and a coordinated effort from the entire city, including individuals, community organizations, businesses, institutions, and municipal government.

The Communications and Engagement Subcommittee has developed strategies to engage City departments, residents, businesses, and other stakeholders to better understand litter and waste challenges by using clear and unified language that is informed by sophisticated data, improved collaboration between City departments, and increased outreach to city residents and private sector stakeholders. This messaging includes a mix of digital media, along with the tried and true grassroots methods of community organizing, to ensure that the message crosses the digital divide and is as inclusive as possible. In order to be successful, a strong emphasis must be placed on educating individuals about Zero Waste principles and practices, as well as providing inspiration to people to help keep their city clean. The following digital and on-the-ground strategies will be employed to accomplish this ambitious goal.

Clean PHL

A major request that the Zero Waste and Litter Cabinet received while conducting outreach to community stakeholders, partner organizations, and city residents was to have one comprehensive website that contained organizational resources, engagement opportunities, and information for addressing litter abatement. The website CleanPHL.org was created to meet this need by aggregating multi-departmental and community partner information organized in the following three sections.

- **Engagement Opportunities**
Residents can use this section to find volunteer or engagement opportunities they can take advantage of to help keep their communities clean.
- **Organizational Resources**
Residents can use this section to find the educational and programmatic resources needed to organize with their fellow residents to help keep their communities clean.
- **Materials and Templates**
Residents can use this section to find the print and web-based materials needed to help keep their communities clean.

The other main function of CleanPHL.org is to host the searchable City of Philadelphia Litter Index that the public can use to find the litter scores for their immediate areas. Residents, community leaders, and service organizations will be able to type in their address, and the site will be populated with a City of Philadelphia Litter Index score. Scores are calculated by the Office of Innovation and Technology based off an aggregate of the scores collected by the six partnering departments. The score will also be accompanied by a series of pictures taken to verify that each area was indexed. The Cabinet intends to encourage residents, community leaders, and service organizations to use the index to better understand the litter conditions of their immediate and surrounding areas to help ensure that litter is cleaned up, but also, more importantly, to preempt its accumulation.

Along with the City of Philadelphia Litter Index score, the website will also show residents a box containing information pertaining to the different City and community resources to help keep neighborhoods clean, along with other necessary information. These resources are geocoded and include but may not be limited to:

- Where is the closest sanitation convenience center?
- Does the block have a block captain?
- Does the park have a friends group?
- Is there a nearby watershed group?
- Is there a nearby registered community organization or neighborhood advisory council?
- What is the local trash and recycling collection schedule?

This section will contain yes or no answers to these questions as well as more specific information. The Cabinet's intention is for residents to be able to compare and contrast their local litter scores with the amount of resources in their neighborhoods. The goal is to help stakeholders understand that having resources such as block captains, friends groups, and other community organizations is paramount to preventing litter. Providing readily available access to this information in an accessible format will encourage more individuals to take advantage of these programs and join the fight against litter. To further streamline this process, each question will contain links to the specific resource. For example, if a resident finds that his or her block's City of Philadelphia Litter Index rating is a four, yet the area lacks a block captain, that resident can click on a link to learn more about becoming a block captain, thus joining

in Philadelphia's fight against litter. It is an overarching goal of the Zero Waste and Litter Cabinet for the City of Philadelphia Litter Index to become the tool that brings each individual neighborhood to the cleanest litter rating possible.



Waste Watchers

While an online presence is necessary for reaching people in the digital age, there is no substitute for the tried and true techniques of grassroots community organizing. This type of organizing created the incredibly successful Philadelphia More Beautiful Committee's Block Captain Program as well as the Philadelphia Parks and Recreation Neighborhood Stewardship Network. The Cabinet is inspired by the hard work, dedication, and high functionality of these programs and desires to build off their legacies and models rather than creating new or competing programs for this action plan.

With that intention, the Communications and Engagement Subcommittee established the goal of creating a complimentary program that could act as a continuous thread to tie together all of the existing community and City stewardship programs under the focused task of litter abatement. After much discussion, the subcommittee identified the existing Waste Watchers Program to act as this thread.

The Waste Watchers Program was created in 2011 through a partnership between the Office of Sustainability and the Mayor's Office of Civic Engagement and Volunteer Service. The goal was to work with the consultants and City staff of the Philadelphia Marathon to increase recycling and introduce



composting to event participants. Through grant funding and donations, the program acquired three-bin systems to collect waste, recycling, and compost. The program then recruited volunteers to monitor the bins and educate event participants on proper disposal, and program coordinators worked with City departments including the Managing Director’s Office of Special Events and the Streets Department to operate the program.

Over six years, the Waste Watchers Program worked with other City staff to achieve Zero Waste designation (90 percent diversion of all materials) from the Philadelphia Marathon and expanded into other events such as the Broad Street Run, the Love Run, and the Philadelphia Science Festival. Along with the Cabinet’s stated goal of making Philadelphia the “Home of Zero Waste Events,” the Communications and Engagement Subcommittee also sees a great opportunity to expand the scope to the following three areas to further build capacity for grassroots organizing for Zero Waste and litter abatement.

- Community Presentations
- Zero Waste Block Cleanups
- Zero Waste Event Volunteering

To achieve these three objectives, the Communications and Engagement Subcommittee, in partnership with Recyclebank, will develop a curriculum that provides residents and

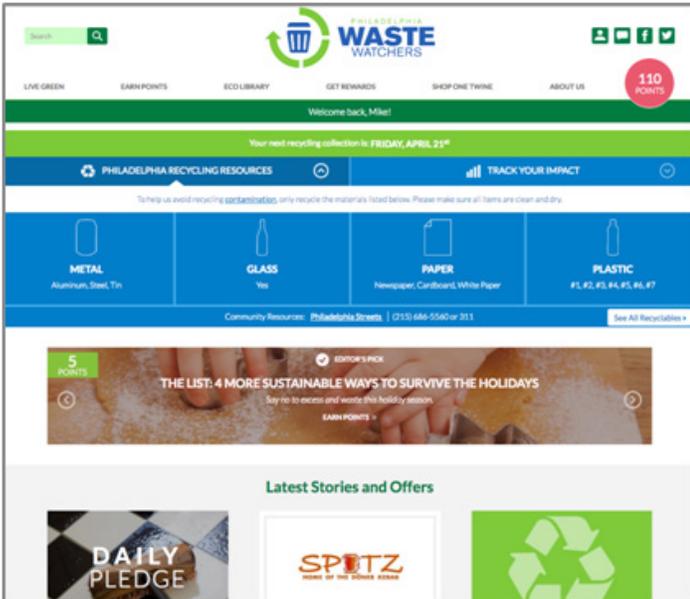
community stakeholders with resources, support, and training on promoting Zero Waste principles for cleanups, event volunteering, and community education. This curriculum will be offered in quarterly training sessions to people in existing stewardship programs such as the block captain program or City stewardship groups as well as to individuals who would like to make a difference in Zero Waste and litter abatement.

Participants in the training program become certified Waste Watchers after successfully completing the training curriculum. Certified Waste Watchers will then be responsible for completing a certain number of actions each quarter to maintain certification. These actions can include hosting a presentation on how to correctly recycle, hosting a block cleanup using Zero Waste principles, or volunteering at an event where Waste Watchers have been requested.

Future Plans

Aside from the desire to clean up litter and reduce waste, the Cabinet also understands that added incentives would encourage participation in these programs. As such, the Cabinet has the great opportunity to be working with the Recyclebank Program as Recyclebank rebrands itself under the Waste Watchers Program.

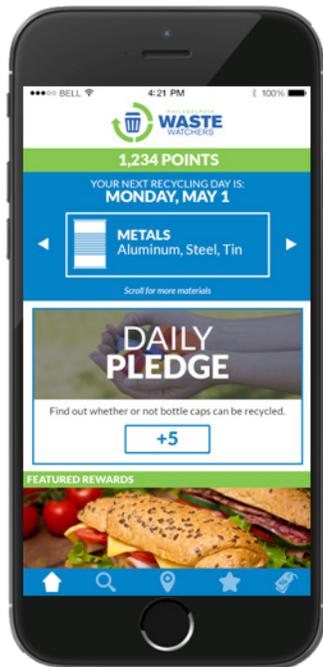
Waste Watchers



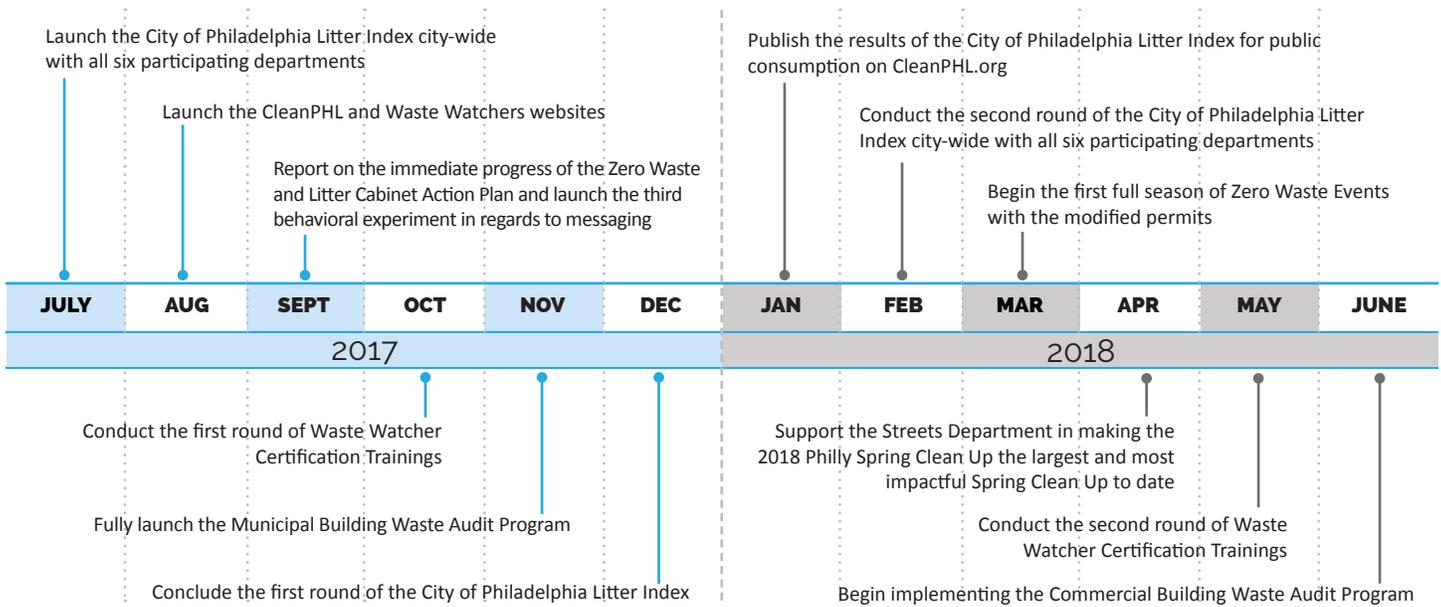
Recyclebank began their partnership with the Streets Department in 2007 as single stream recycling was launched. This partnership produced the successful Recycling Rewards Program, which provides residents with points for recycling as well as educational opportunities such as online quizzes. Recyclebank will be expanding these incentives and educational opportunities to incorporate many other aspects of Zero Waste, such as single stream recycling and community composting. Utilizing their well-developed web and mobile platforms, Recyclebank will expand these opportunities for their existing users and will reward users who participate with incentives such as discounts to restaurants and retail stores for earning points.

In addition to expanding these programs, Recyclebank will also take on the marketing, messaging, and incentives decision-making for the Waste Watchers Program to assist in the certification and tracking of Waste Watcher actions. By providing opportunities for passive users to earn points for one-off actions or to become fully-certified Waste Watchers, our hope is that this partnership will be able to engage as many Philadelphians as possible in making Philadelphia one of the cleanest and greenest cities in America and put us on a path to Zero Waste by 2035.

Both of these initiatives will have robust social media presences that will rely on aggregating and sharing content across City departments and other stakeholders involved in the Cabinet. The Communications and Engagement and Waste Reduction and Diversion Subcommittees will also develop a Zero Waste webpage that will contain information and materials related to Zero Waste efforts in Philadelphia, such as the city-wide waste diversion rate, Waste Audit Guide and Guide to Zero Waste Events, reporting forms, and links to information about how to become a Waste Watcher.



First Year Timeline



Next Steps for the Future

This action plan was designed to create a road map for Philadelphia to secure a litter-free future with the ongoing goal of Zero Waste, as defined through this plan's Zero Waste policy objective, by 2035. However, the membership of the Cabinet understands that many aspects of this plan, especially in regards to Zero Waste, are contingent on local, state, national, and international factors. As many of these conditions are beyond the City's sole control, it is challenging to set firm deadlines for achieving every single long-term policy objective mentioned in this plan.

Nevertheless, by setting the goals outlined in this report, the City of Philadelphia now has a clearly defined target and aspiration against which it can evaluate its operational, policy, and regulatory decisions going forward. As per Executive Order 13-16, the Cabinet is responsible for preparing an annual progress report every September that reports on the outcomes of the previous fiscal year's progress toward accomplishing the action plan's objectives while also determining the major initiatives of the action plan to be accomplished in the following fiscal year. To initiate this process, the Cabinet would like to take the opportunity to define the actions that it plans to accomplish in Fiscal Year 2018, which are outlined in the timeline above.

Appendix A
Appendix B
Appendix C

Appendix A

Municipal Building Waste Audit Program
Digital Reporting Form



Philadelphia Municipal Building Waste Audit

PART 1: MANDATORY REPORTING

Facility and Contact Information

Property Name

City Department

Property Address

Street Address

Street Address Line 2

City

Postal / Zip Code

Manager Name

First Name

Last Name

Manager Phone Number

Area Code

Phone Number

Manager E-mail

Contact Name (Survey Respondent)

First Name

Last Name

Contact Phone Number

Area Code

Phone Number

Contact E-mail

Property Type (Please check at least one.)

- | | |
|--|--|
| <input type="checkbox"/> Office | <input type="checkbox"/> Library |
| <input type="checkbox"/> Museum | <input type="checkbox"/> Public Utility Facility |
| <input type="checkbox"/> Storage Facility | <input type="checkbox"/> Maintenance Facility |
| <input type="checkbox"/> Recreation Facility | <input type="checkbox"/> Courthouse |
| <input type="checkbox"/> Police Station | <input type="checkbox"/> Post Office |
| <input type="checkbox"/> Prison | <input type="checkbox"/> Warehouse |

(Other)

What types of materials does this premises generate? Please check all that apply.

- Solid Waste (Trash)
- Single Stream Recycling (Could include #1-#7 plastic containers, aluminum and steel cans, glass bottles and jars, office paper, cardboard, and aseptic cartons)*
- Electronic Waste (Computers, monitors, phones, and other electronics)*
- Source Separated Recycling (Could include any of the single stream materials listed above and/or organic waste)
- Waste Cooking Oil*
- Used Motor Oil*
- Universal Waste (fluorescent bulbs, batteries, pesticides, etc.)*
- Hazardous Waste (solvents, oil-based paint, etc.)*
- Medical Waste*
- Construction and Demolition (C&D) Debris

*These materials are mandated by state and/or municipal law to be recycled and/or disposed of properly according to industry-specific regulations.

Please fill out the section below to provide information about the service providers collecting materials from your premises. If your facility does not generate a particular material, leave that row blank.

	<u>Name of Service Provider (Hauler)</u>
Solid Waste (Trash)	_____
Single Stream Recycling	_____
Electronic Waste	_____
Source Separated Recycling	_____
Waste Cooking Oil	_____
Used Motor Oil	_____
Universal Waste	_____
Hazardous Waste	_____
Medical Waste	_____
Construction and Demolition (C&D) Debris	_____

Do you need to find a hauler for one of the above listed materials? [Visit the haulers list to find a Philadelphia hauling company.](#)

What challenges is your organization facing in trying to reduce waste and increase recycling at your facility? Please use this space to identify any barriers your organization faces. These comments will be used to inform future recycling efforts in Philadelphia.

You have now completed the mandatory section of the Municipal Building Waste Audit form. Please click through the form's remaining pages and consider completing the optional Zero Waste Reporting section before submitting. If you would like to skip the Zero Waste Reporting section, you can now print or submit your form.

PART 2: ZERO WASTE REPORTING (OPTIONAL)

The City of Philadelphia is working toward becoming a Zero Waste and litter-free city. With this initiative, we are encouraging City departments to reduce waste and increase recycling at their facilities. [Visit the Philadelphia Waste Audit Guide](#) to learn about how you can reduce your property's trash, separate materials for recycling, and identify opportunities to divert waste away from landfills.

In this section, you have the option of reporting on your management practices for additional materials that your facility may recycle or donate. By completing this portion of the form, you can develop a better idea of the composition of your property's waste stream and benchmark its current waste diversion rate — the amount of waste being diverted from landfill and incineration through recycling, composting, and donations.

This section is designed to help you determine how much waste your facility generates to more easily understand opportunities for recycling and waste diversion. Reducing trash and increasing recycling and donations can help you prevent valuable resources from entering landfills and can bring you closer to becoming a [Philadelphia Zero Waste Partner](#). If you are looking to become or maintain status as a Zero Waste Partner, you must fill this form out monthly. Submit your form for a particular month by the last day of the following month. (For example, submit your form for August by September 30).

Does your facility separate and recycle or donate any of the following materials? Please check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Food Waste | <input type="checkbox"/> Yard and Leaf Waste |
| <input type="checkbox"/> Polystyrene (Styrofoam) | <input type="checkbox"/> Plastic Bags |
| <input type="checkbox"/> Wood | <input type="checkbox"/> Metal |
| <input type="checkbox"/> Clothing | <input type="checkbox"/> Edible, Unopened Packaged Food |

Estimate Your Facility's Monthly Waste Diversion Rate

In this section, report on the amount of material your facility generates to estimate your facility's monthly waste diversion rate. Much of the information needed to complete the form may be found on your service provider invoices. If your service provider invoices for a particular material list the number of tons collected per month, please enter that number into the "Tons Collected per Month" column in the matrix below.

If you cannot obtain this information from your service provider invoices, use the Philadelphia Waste Generation Calculator Tool ([Microsoft Excel file](#) or [Google Sheets document](#)) to estimate the number of tons of each material your facility generates using information about your current levels of collection service. Follow the instructions in the calculator tool to fill out the matrix below.

(NOTE: "Medical Waste" and "Edible, Unopened Packaged Food" are not included in the calculator tool. It is likely that your service providers will provide weights for these materials, which you can enter directly into the matrix below.)

If you know the number of pounds of a certain material generated, type that number into the "Type Number of Pounds Here" field below to convert into tons before filling out the matrix.

Type Number of Pounds Here: _____ Pounds **Is Equal to:** _____ Tons

Reporting Month (What month is this data for?)

Month

Year

<u>Tons Collected per Month</u>	<u>Name of Service Provider (Hauler)</u>	<u>Instructions</u>
Solid Waste (Trash) _____	_____	Please fill out the matrix using your service provider invoices and/or the Waste Generation Calculator Tool. If your facility does not generate a particular type of waste, leave that row blank. If your facility source separates and recycles materials not included in this list, please enter the information related to those materials in the last two rows of the matrix and use the fields below the matrix to identify those additional materials. The data entered in the matrix will be used to estimate your facility's overall waste diversion rate before you submit the form. <i>(Enter values from Waste Generation Calculator Tool here).</i>
Hazardous Waste _____	_____	
Medical Waste _____	_____	
Single Stream Recycling _____	_____	
Electronic Waste _____	_____	
Waste Cooking Oil _____	_____	
Used Motor Oil _____	_____	
Universal Waste _____	_____	
Construction & Demolition (C&D) Debris _____	_____	
Food Waste _____	_____	
Yard and Leaf Waste _____	_____	
Polystyrene (Styrofoam) _____	_____	
Plastic Bags _____	_____	
Wood _____	_____	
Metal _____	_____	
Clothing _____	_____	
Edible, Unopened Packaged Food _____	_____	
Additional Material 1 _____	_____	
Additional Material 2 _____	_____	
Additional Material 1 (if applicable)	Additional Material 2 (if applicable)	
_____	_____	
Name any additional materials you listed above.	Name any additional materials you listed above.	

Your Facility's Waste Diversion Rate. Based on data entered above. Do not enter any information here.

_____ Your facility's diversion rate is calculated by dividing the weight of material diverted by the overall amount of material generated.

What challenges is your organization facing in trying to reduce waste and increase recycling and donations at your facility as you strive toward Zero Waste? Please use this space to identify any barriers your organization faces and/or to provide feedback on the Zero Waste reporting process. These comments will be used to inform future Zero Waste efforts in Philadelphia.

Thank you for completing the Municipal Building Waste Audit form. Please review your responses before submitting.



Appendix B

Zero Waste Events Program
Digital Reporting Form



Zero Waste Events Waste Diversion Report

The City of Philadelphia is working toward becoming a Zero Waste and litter-free city. With this initiative, we are encouraging reduced waste generation and increased recycling at special events. [Visit the Philadelphia Guide to Zero Waste Events](#) to learn about how you can reduce your event's trash, separate materials for recycling and composting, and identify additional opportunities to divert waste away from landfills. Reducing trash and increasing recycling and donations from your event can help to prevent valuable resources from entering landfills and can bring you closer to becoming a [Philadelphia Zero Waste Event Partner](#).

Use this form to estimate and report on your event's waste diversion rate — the amount of waste that your event diverted away from landfill and incineration through recycling, composting, and donations.

Event and Contact Information

Event Name

Event Start Date and Time

Month	Day	Year	Time
-------	-----	------	------

Event End Date and Time

Month	Day	Year	Time
-------	-----	------	------

Event Type (Please check at least one.)

- Athletic Event (Marathon or other run, walkathon, bike race, etc.)
- Concert/Music Event
- Fundraiser/Charitable Event
- Parade
- Street Festival
- Community Event

_____ (Other)

Event Location

Street Address

City

Postal / Zip Code

Did your event start at one location and end at another?

- Yes No

Event End Location (if event started at one location and ended at another)

Street Address

City

Postal / Zip Code

Organization Name

What particular department, organization, business, or community group held the event?

Contact Name

_____ _____
First Name Last Name

Contact Phone Number

_____ _____
Area Code Phone Number

Contact E-mail

Contact/Organization Address

Street Address

Street Address Line 2

City

State / Province

Postal / Zip Code

Estimated # of Event Participants

Estimated # of Spectators (if applicable)

Event Waste Diversion Practices

What types of materials were generated at your event and recycled or donated? Please check all that apply.

- Single Stream Recycling (Could include #1-#7 plastic bottles and containers, aluminum and steel cans, glass bottles and jars, office paper, cardboard, and aseptic cartons)
- Food Waste
- Electronic Waste (Computers, monitors, phones, and other electronics)
- Wood
- Metal
- Polystyrene (Styrofoam)
- Excess Food Donations
- Clothing Donations

_____ (Other)

Estimate and Report Your Event's Waste Diversion Rate

In this section, report on the amount of material generated, recycled, and donated at your event. This information will be used to estimate your event's waste diversion rate. Much of the information needed to complete the form may be found on your service provider invoices. If your service provider invoice for a particular material lists the number of tons collected, please enter that number into the "Tons Collected from Event" column in the matrix below.

If you cannot obtain this information from your service provider invoices, use the Zero Waste Events Waste Generation Calculator Tool ([Microsoft Excel file](#) or [Google Sheets document](#)) to estimate the number of tons of each material that were recycled and/or donated from your event. Follow the instructions in the calculator tool to complete the section below. **(NOTE: "Excess Food Donations" is not included in the calculator tool. It is likely that the food donation entity will provide a weight for donated food, which you can enter directly into the matrix below.)**

If you know the number of pounds of a certain material generated at your event, type that number into the "Type Number of Pounds Here" field below to convert into tons before filling out the matrix.

Type Number of Pounds Here: _____ **Pounds** **Is Equal to:** _____ **Tons**

<u>Tons Collected from Event</u>	<u>Name of Service Provider</u>	<u>Instructions</u>
Solid Waste (Trash) _____	_____	<p>Please fill out the matrix using your service provider invoices and/or the Zero Waste Events Waste Generation Calculator Tool. If your event did not generate a particular type of waste, leave that row blank.</p> <p>The data entered here will be used to estimate your event's overall waste diversion rate before you submit the form. If additional materials to those listed here were separated and recycled, please enter the information related to those materials in the last two rows of the matrix and use the fields below the matrix to identify those additional materials.</p>
Single Stream Recycling _____	_____	
Food Waste _____	_____	
Electronic Waste _____	_____	
Wood _____	_____	
Metal _____	_____	
Polystyrene (Styrofoam) _____	_____	
Excess Food Donations _____	_____	
Clothing Donations _____	_____	
Additional Material 1 _____	_____	
Additional Material 2 _____	_____	

Additional Material 1 (if applicable)

Additional Material 2 (if applicable)

Name any additional materials you listed above.

Name any additional materials you listed above.

Your Event's Waste Diversion Rate. Calculated based on data entered above. Do not enter any information here.

Your event's diversion rate is calculated by dividing the weight of material diverted by the overall amount of material generated.

What challenges is your organization facing in trying to reduce waste and increase recycling and donations at events as you strive toward Zero Waste? Are there additional resources or tools the City could provide to help improve waste diversion from events? Please use this space to identify any barriers your organization faces and/or to provide feedback on the Zero Waste Events reporting process. These comments will be used to inform future Zero Waste efforts in Philadelphia.

Thank you for completing the Zero Waste Events Waste Diversion Reporting form. Please review your responses before submitting.

Appendix C

Litter Enforcement & Cleaner Public Spaces Recommendations

Litter Enforcement: Short-term Priorities

Short-term Enforcement Recommendation 1: Improve Tire Regulation and Enforcement

- **Can we do it?**
 - State law currently mandates that all waste tire haulers have a waste tire hauler authorization number and maintain a record of tires hauled and its disposal methods.
 - A local ordinance can also be enacted to require any business that buys or sells tires to maintain a manifest to track the tires received and disposed of. These requirements are similar to those already in effect for pawnbrokers.
 - According to the City of Philadelphia's Department of Licenses and Inspection (L&I), a robust tire enforcement program will likely require two inspectors and two vehicles.
- **Will it work?**
 - A local ordinance requiring businesses that purchase or sell tires to maintain records of the tires they receive and dispose of will allow L&I to better identify discrepancies between these records and the records required by state law for waste tire hauler disposal.
 - A local ordinance that allows the City to take legal action against tire haulers and tire dealers where this discrepancy occurs will help improve enforcement for improper tire disposal.
- **Is it worth it?**
 - The City of Philadelphia collected 132,100 tires in 2016.¹⁰
 - The Streets Department paid \$124,592 in 2016 to dispose of tires.¹¹
 - Improperly dumped tires are toxic, unsightly, and pose significant environmental problems.

Short-term Enforcement Recommendation 2: Include Construction and Demolition Waste Plans on All L&I Construction, Demolition, and Alterations Permits

- **Can we do it?**
 - L&I regulations currently require all City-sanctioned, large-scale demolition projects to report information on waste haulers and tonnages. However, this requirement does not presently apply to all permits for construction, demolition, or alteration work.
 - When applying for a permit, a developer or contractor would have to identify its hauler and would be required to maintain disposal receipts during and after the work.
 - Establishing this requirement would require an ordinance from City Council.
- **Will it work?**
 - Requiring this information at the time of permit application will set a standard that waste management must be a priority for these projects from the outset, rather than an afterthought.
 - This information will create a paper trail that departments can follow should there be evidence of improper waste disposal or an unkempt work site.
 - This information will allow City departments to flag waste disposal operators or companies that have been convicted of illegal dumping.
- **It is worth it?**
 - In 2016, Streets and CLIP cleaned up more than 1,000 heavy short dumps, equaling more than 13,000 tons of debris at a cost exceeding \$8 million when estimated using Keep Pennsylvania Beautiful's metric of \$619 per ton for cleaning up illegal dumping.¹²

¹⁰ Streets Department, City of Philadelphia. Annual Report. 2016. Raw unpublished data.

¹¹ Ibid.

¹² Ibid.

Short-term Enforcement Recommendation 3: Coordinate and Improve Short Dumping Surveillance

- **Can we do it?**
 - The City currently has a camera system that can be used to monitor known problem spots for illegal dumping. The City of Philadelphia Litter Index will help City officials identify additional problem areas to deploy cameras.
 - An increasing number of residents and businesses are installing private cameras and linking them to the police system.
 - With so many cameras set up throughout the city, a coordinated system is needed for retrieving footage from cameras when short dumping occurs based on reports from residents, businesses, and City staff.
- **Will it work?**
 - Short dumpers can only be prosecuted with sufficient evidence such as a police video, arrest, or photo evidence.
 - Keep Pennsylvania Beautiful has provided specifications for the quality of cameras and set-up needed to capture license plates with a timestamp which are critical pieces of information for successful prosecution.
- **Is it worth it?**
 - Successful prosecution of illegal dumping is critical for deterring this behavior.
 - Cleaning up illegal dumping presents significant financial costs to taxpayers. Keep Pennsylvania Beautiful estimates that short dumping on average costs municipalities \$619 per ton to remediate, which equates to more than \$8 million based on the tonnages cleaned up by Streets and CLIP alone.¹³

Short-term Enforcement Recommendation 4: Increase Fines for Short Dumping

- **Can we do it?**
 - Civil penalties for dumping debris and short dumping can be established by ordinance. Legislation is pending in City Council to increase these fines, from \$300 to up to \$2,000.
- **Will it work?**
 - Fines must be sufficiently expensive to provide a meaningful deterrent. If the fine is less than the cost of doing business legitimately, the fine will not effectively discourage illegal dumping.

- **Is it worth it?**
 - Increasing fines by ordinance does not present any meaningful cost to the City, yet can generate additional revenue and discourage bad behavior when properly enforced.
 - These fines have not been increased since the 1980s. Increasing fines will send a message that Philadelphia is aggressively addressing illegal dumping.

Short-term Enforcement Recommendation 5: Impose Mandatory Community Service Hours For Short Dumping Diversion Programs

- **Can we do it?**
 - Currently, a majority of criminal short dumping violations are treated as misdemeanors.
 - Many misdemeanor offenders are eligible for diversion programs titled Accelerated Misdemeanor Program (AMP) 1 and AMP 2, which often require community service to be performed.
 - The District Attorney has the authority to establish a policy to request that judges require short dumping offenders participating in diversion programs to perform community service hours cleaning up illegal dumping and performing other beautification work with CLIP.
- **Will it work?**
 - Systematically requiring short dumping offenders to clean up illegally dumped trash would provide tangible physical benefits in the form of a cleaner city while hopefully discouraging this behavior in the future.
 - Requiring non-violent offenders to perform community service cleaning up the city instead of serving a jail sentence is consistent with the Kenney Administration's goal of diverting nonviolent offenders from prison.
- **Is it worth it?**
 - Requiring community service will provide a meaningful deterrent that will hopefully change behavior while also helping to clean up the city.
 - When coupled with other penalties such as increased fines, vehicle seizure, and/or liens that disrupt doing business, behavior will hopefully change and result in less illegal dumping in the future.

Short-term Enforcement Recommendation 6: Impose Seizure and/or Forfeiture of Vehicles Involved in Short Dumping Crimes

- **Can we do it?**
 - The Philadelphia Code and state law currently permit vehicles to be seized when used to commit illegal short dumping.
 - The Law Department and District Attorney's Office can aggressively seek forfeiture to be imposed when appropriate.
- **Will it work?**
 - The forfeiture of a vehicle is a significant deterrent and will remove the primary means used by the offender to commit the crime.
- **Is it worth it?**
 - This remedy could be used against the most egregious or frequent offenders who have not been deterred by fines or community service.

Short-term Enforcement Recommendation 7: Increase and Streamline Illegal Dumping Cases in Court System

- **Can we do it?**
 - These cases refer to misdemeanor offenses, not summary offenses, that will result in diversion programs, Licenses and Inspections Administrative Hearings, or fines and other penalties such as vehicle forfeiture.
 - The Cabinet's goal will be to bring 20 illegal dumping cases to court per quarter. In 2016, despite the fact that the Streets Department cleaned up 921 short dumps and CLIP investigated 128 cases of short dumping, just 12 short dumping cases were charged as misdemeanors.^{14 15}
- **Will it work?**
 - By streamlining illegal dumping cases, the District Attorney's Office and Licenses and Inspections can better ensure that consistent fines, community service, administrative penalties, and vehicle forfeiture penalties are sought.
 - With a higher volume of cases being prosecuted in a streamlined manner, it may be easier to encourage witnesses and businesses with evidence from cameras to go to court.

- **Is it worth it?**
 - With over 1,000 short dumping cases reported between the Streets Department and CLIP in 2016, there is a sufficient volume of offenses to increase this caseload, provided that enough evidence can be gathered to prosecute them.^{16 17}
 - Streamlining cases will lead to better tracking and more consistent and efficient prosecution.
 - Prioritizing these cases will also create a heightened level of priority for this crime.

Short-term Enforcement Recommendation 8: Coordinate Education and Enforcement of the Requirements of the Waste Bin Law for All Commercial Establishments Selling Prepared or Prepackaged Food

- **Can we do it?**
 - Section 10-704 of the Code requires all commercial establishments selling prepared or prepackaged food for takeout or consumption off premises to provide trash and recycling receptacles near their entrance.
 - Section 46-881 of the Health Department Regulations Governing Food Establishments sets standards for how this trash storage should be developed and maintained.
 - SWEEP, CLIP, L&I, and the Department of Public Health all have enforcement capabilities to increase compliance.
- **Will it work?**
 - This law requires businesses that sell products that often contribute to litter problems to provide and maintain public realm trash cans to help ensure that customers have the opportunity to properly dispose of waste.
 - To encourage compliance, the Commerce Department can develop materials explaining these laws and tips for compliance to all new prepared or prepackaged food establishments.
 - City enforcement officers (from SWEEP, L&I, and Health) can be specifically trained to enforce this requirement more consistently.
- **Is it worth it?**
 - Improved compliance with this requirement could substantially increase the amount of public trash cans in the city with little cost to City resources.
 - Food containers and packaging continue to make up a majority of litter on Philadelphia's streets. Improving the availability of receptacles could substantially reduce the amount of litter.

¹⁴ CLIP, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

¹⁵ Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

¹⁶ Ibid.

¹⁷ CLIP, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

Short-term Enforcement Recommendation 9: Increase Zoning Code Enforcement of Interior Trash Storage for New Construction or Variances

- **Can we do it?**
 - The Zoning Code already requires that new commercial and residential construction have adequate indoor trash storage.
 - Registered Community Organizations can be educated to be vigilant about this requirement when evaluating development proposals, and the Zoning Board of Adjustment can more consistently enforce this requirement on development matters that come before it.
- **Will it work?**
 - Inadequate indoor trash storage encourages many people who live in multi-family dwellings to improperly dispose of their household trash in public trash cans.
 - Inadequate commercial indoor trash storage also leads to a proliferation of dumpsters.
 - Ensuring that new construction has adequate indoor trash storage will help alleviate the problems of household dumping and improper set outs.
- **Is it worth it?**
 - In 2016, Philadelphia had 5,688 reports of illegal dumping and 2,384 reports of improper set outs.¹⁸
 - Having more indoor trash storage could reduce the more than 8,000 service requests the City received in 2016 for waste mismanagement issues, as well as specifically reduce occurrences of improper dumping of household waste at overflowing public trash cans.¹⁹

Short-term Enforcement Recommendation 10: Identify and Enforce Dumpster-Free Streets

- **Can we do it?**
 - City departments can develop a list of streets that could be dumpster-free based on a set of criteria. This list can then inform the licensing and approval process for new dumpsters in the public right-of-way.
 - An ordinance or change to Streets Department regulations would be needed to enforce.
- **Will it work?**
 - By having dumpster-free streets, the width of the public right-of-way can be maintained, the appearance of the streetscape can be improved, and unsanitary conditions that affect other neighboring businesses can be alleviated.

- **Is it worth it?**
 - Cleaner commercial corridors are good for business. A Morpace Marketing Research study found that 52% of shoppers will avoid a business if the facade or entrance is dirty or unappealing.²⁰
 - Fewer dumpsters may create a stronger and more appealing retail business climate on these streets.
 - In 2016, there were 184 service requests submitted to 311 for dumpster maintenance issues.²¹

Short-term Enforcement Recommendation 11: Increased Enforcement and Education on Improper Waste Set Outs

- **Can we do it?**
 - SWEEP Officers issued 2,834 improper set out violations in 2016.²²
 - SWEEP currently conducts education campaigns on improper set outs.
 - CDCs and the Commerce Department educate commercial properties on improper set outs.
 - The Waste Watchers 2.0 program will be built to increase resident-to-resident education on improper set outs.
 - More multilingual information is needed for residents and businesses on how to properly set out trash and recycling.
- **Will it work?**
 - Stronger enforcement efforts will lead to additional engagement opportunities to educate and inform community members.
- **Is it worth it?**
 - Improper set outs greatly affect Streets Department operations and contribute to littered conditions on trash pickup day.
 - Expanding education about proper set outs also presents an opportunity for expanded education about waste and recycling practices more generally.

Short-term Enforcement Recommendation 12: Increase Enforcement of \$300 Moving Violation for Throwing Trash Out of a Window

- **Can we do it?**
 - State law currently authorizes all police (state and municipal) to issue \$300 fines for throwing trash out of a car window when the car is moving.
 - In 2016, Philadelphia Police issued 99 tickets for this violation.²³

- **Will it work?**
 - This moving violation is attached to a person's driver's license, which makes tracking and collection easier.
 - Police already have the legal authority to issue these violations.
- **Is it worth it?**
 - As preliminary litter indexing has shown, as well as observations of highway conditions, litter accumulates in great concentrations along non-residential highways. Increasing these tickets can send a message that this behavior will not be tolerated in Philadelphia.

Short-term Enforcement Recommendation 13: Mandate That All Circulars are Designed as Door Hangers

- **Can we do it?**
 - Legislation can amend an existing ordinance to require that all circulars, whether they consist of one sheet of paper or a collection of papers in a bag, be designed as a door hanger and require they be hung by the distributor at each property.
 - This ordinance would exempt Registered Community Organizations (RCOs) that pass out zoning materials and other appropriate and sanctioned community-based flyers.
- **Will it work?**
 - If a circular is affixed to a door, it will help prevent the paper from blowing away and becoming litter.
 - These requirements would force a distributor to walk to the door rather than carelessly dump the circular on steps.
- **Is it worth it?**
 - Much of the litter observed on neighborhood streets is circulars, and preventing this waste would greatly enhance cleanliness.

Short-term Enforcement Recommendation 14: Revise Section 9-604 (5)(6)(7)(8) of the Philadelphia Code Regarding Hauler Reporting

- **Can we do it?**
 - Section 9-604(5)(6)(7)(8) of the Philadelphia Code currently licenses collection vehicles, which mandates waste haulers to report tonnages.
 - This ordinance was preempted by Act 90 of 2010 which states, "No municipality may implement a municipal waste or residual waste transportation authorization or licensing program after the effective date of this chapter."

- An ordinance would be needed to create a business activity license in Philadelphia specific for the activity of private waste hauling, which could then regulate the reporting of tonnages in accordance with ACT 90 of 2010 and Act 101 of 1988.
- **Will it work?**
 - Many haulers already voluntarily report information about their tonnages.
 - This business license can also be used to help ensure that haulers are following municipal law by picking up recycling, in addition to trash, from businesses.
- **Is it worth it?**
 - Measuring progress toward a Zero Waste goal will be virtually impossible without making sure that commercial haulers are consistently reporting their tonnages.

Litter Enforcement: Long-term Priorities

Long-term Enforcement Recommendation 1: Create a Formalized Environmental Crimes Unit Within the Philadelphia Police Department (PPD) Neighborhood Services Unit

- **Can we do it?**
 - An Environmental Crimes Unit was started under Mayor Goode and absorbed into Neighborhood Services by Mayor Street.
 - The PPD currently dedicates officers in Neighborhood Services to work solely on investigating and conducting surveillance of illegal dumping on City vacant and natural lands.
 - By rebranding these officers as the Environmental Crimes Unit within Neighborhood Services, and adding additional officers to the Unit, the PPD could increase the number of arrests in response to the more than 1,000 reports of short dumping made annually.
- **Will it work?**
 - Philadelphia has more than 10,000 acres of natural areas and nearly 27,000 vacant lots.²⁴ Having an increased police detail solely focused on Environmental Crimes in these areas will lead to stronger enforcement and hopefully fewer occurrences of illegal dumping.
 - Designation of an Environmental Crimes Unit would allow other officers in Neighborhood Services to more directly focus on other quality of life issues in the neighborhoods.

22 Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

23 Municipal Court Traffic Division, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

24 Department of Planning and Development, City of Philadelphia. Internal data. 2017. Raw unpublished data.

- **Is it worth it?**
 - Expanding this team will allow the PPD to increase surveillance, thereby increasing evidence and leading to more successful prosecutions of crimes like short dumping.
 - Branding the unit “Environmental Crimes” puts emphasis on the larger ecosystem affected by illegal dumping and litter.

Long-term Enforcement Recommendation 2: Develop Monthly Code Violation Notice (CVN) Reports for Issuing Departments

- **Can we do it?**
 - The Office of Administrative Review’s (OAR) E-TIMS System currently collects data on every CVN issued by City departments and agencies.
 - OAR can use E-TIMS to pull Monthly Data Reports that can be sent to CVN-issuing departments to track how many CVN’s are being issued, for which specific offenses, in various geographic areas.
 - This data is public and can be incorporated into Open Data for 311 to be able to compare with Public Safety data.
- **Will it work?**
 - Providing this monthly report will allow specific agencies to better analyze the effectiveness of enforcement efforts and identify gaps between enforcement efforts and complaints.
- **Is it worth it?**
 - By coordinating this information, departments can ensure that staff time and department resources are being used as efficiently as possible.
 - This information already exists and would not require a significant increase of resources or system upgrades to accomplish.

Long-term Enforcement Recommendation 3: Ban Plastic Bags

- **Can we do it?**
 - A fee had been proposed in City Council in 2009 but was not successful. A ban has not yet been attempted in Philadelphia.
 - The City of Portland, the State of Hawaii, and the City of San Francisco have implemented full bans.
 - Legislation to ban plastic bags is pending in other cities and states.

- **Will it work?**
 - A University of New Hampshire study found that a ban was much more effective than a fee for taking plastic bags out of the waste stream and preventing them from becoming litter. In jurisdictions that implemented fees and bans, studies have shown one-time consumer bag usage decreased by as much as 80 percent.²⁵
 - A fee is more burdensome to collect and enforce than an outright ban.
- **Is it worth it?**
 - Plastic bags are one of the most widely distributed and frequently littered items in the modern economy. Last year, more than 900 million plastic bags were distributed in Philadelphia.²⁶
 - The Water Department found that plastic bags comprise 17% of all floatables found in Philadelphia’s waterways. Additionally, the city’s recycling plant reports that plastic bags cause multiple plant shutdowns every day, which required 12,240 staff hours in 2016 to remove plastic bags from cleaning screens and machinery.²⁷
 - Although plastic bags are generally less expensive than paper, paper bags decompose outdoors in a month while plastic bags take between 200 and 1,000 years to break down and never fully decompose.²⁸

Long-term Enforcement Recommendation 4: Coordinate Commercial Waste Pick Ups with Commercial Waste Haulers

- **Can we do it?**
 - Some cities have established zoned franchises for commercial waste haulers, with haulers bidding competitively to service the zones. However, Act 90 poses legal challenges for Philadelphia to do so.
 - The vast majority (80 percent) of commercial trash in Philadelphia is picked up by just four companies.²⁹
 - The City can achieve some of the benefits of a franchised system by partnering with the four main haulers, as well as other haulers that would want to participate, to create voluntary coordinated pick up schedules to reduce collection truck traffic.
- **Will it work?**
 - This partnership will alleviate congestion, fossil fuel use, and inefficiencies, as multiple companies pick up from multiple nearby locations on a daily basis.
 - This partnership could help the City collect better data and create management standards to increase recycling rates and participation.

²⁵ “The Ubiquitous Plastic Bag - And What To Do.” BioCycle. September 15, 2016. Accessed June 19, 2017. <https://www.biocycle.net/2016/08/15/ubiquitous-plastic-bag/>.

²⁶ Mike Dunn quoted in “PA House bill sacks ability of municipalities to regulate plastic bags.” City and State Pennsylvania. April 27, 2017. <http://www.cityandstatepa.com/content/pa-house-bill-sacks-ability-municipalities-regulate-plastic-bags>.

²⁷ Ibid.

²⁸ “Plastic Bags vs paper Bags.” International Plastics. <http://www.interplas.com/packaging-earth-friendly-recyclable-plastic-bags>.

²⁹ Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

- **Is it worth it?**
 - A New York City-commissioned study found that coordinating commercial waste pick ups could reduce truck traffic on city streets by 42 percent to 68 percent, as well as reduce greenhouse gas emissions by 42 percent to 64 percent.³⁰

Long-term Enforcement Recommendation 5:

Create a 311 “Street Trash” Ticket

- **Can we do it?**
 - From January 1, 2016 to April 17, 2017, Philly 311 recorded 5,688 Illegal Dumping service requests.³¹
 - In a one month period, a keyword search found that 66 percent of the time the term used in the request was “Short Dumping,” and 33 percent of the time the term used was “Street Trash.”³²
- **Will it work?**
 - Many times, the term “Illegal Dumping” can be too broad, and unless the Service Request specifies the type of dumping, the responding operating department does not know the severity of what they are responding to. Creating this Street Trash Ticket will allow Philly 311 service requestors to better detail and differentiate a short dump of large debris from trash that is left on the street.
- **Is it worth it?**
 - By providing the specificity of short dumps from trash on the street, responding operating departments will more efficiently manage their resources and more effectively execute their duties, thus saving the City money and better servicing residents.
 - The creation of a “Street Trash” ticket will also provide more specific data collection for 311, Streets, and CLIP.

Long-term Enforcement Recommendation 6:

Improve Coordination with Scrap Yard Task Force

- **Can we do it?**
 - The Scrap Yard Task Force is coordinated by the Water Department and includes state and municipal enforcement agencies and departments.
 - The Scrap Yard Task Force investigates environmental and quality of life concerns regarding the operation of private scrap metal and auto salvage businesses in Philadelphia.

- The Cabinet can assist with connecting state and municipal enforcement prosecution agencies to ensure compliance and/or prosecution of businesses that are not complying.
- **Will it work?**
 - The Scrap Yard Task Force currently conducts monthly operations and with the further support of the City can ensure that enforcement results in prosecution when appropriate.
- **Is it worth it?**
 - Scrap metal and auto salvage businesses are important parts of Philadelphia’s recycling and future Zero Waste strategies.
 - Ensuring that these companies are in compliance with all laws and regulations will ensure that they can continue to recycle while preventing the creation of a public nuisance or environmental degradation.

Long-term Enforcement Recommendation 7:

Include an Abatement Fine When CLIP Abates Vacant Lots

- **Can you do it?**
 - Fines can be established by City Council ordinance.
 - L&I currently charges a re-inspection fee to property owners who do not comply with a violation notice:
 - 2nd Re-inspection Fee: \$100
 - 3rd Re-inspection Fee: \$200
 - 4th and Subsequent Re-inspection Fees: \$350
- **Will it work?**
 - CLIP does not use the re-inspection fee process. Once a property is abated after the 2nd re-inspection, the property owner is billed for staff time, equipment, and supply usage, and the case is closed automatically in HANSEN, an L&I work management system.
 - By instituting abatement fines on top of CLIP administration fees, CLIP will have the power to gradually increase fines for non-compliant landowners where CLIP continues to abate.
- **Is it worth it?**
 - If CLIP must abate a property more than once in a year, the owner should receive a progressively more expensive fine in addition to the bill for City services. Otherwise property owners lack a strong incentive to take responsibility for maintaining their properties.
 - CLIP abated more than 15,000 vacant lots last year for non-compliance. Of these lots, 25 percent were repeat offenders.³³ Fining these repeat offenders will create revenue and encourage property owners to take more responsibility for their properties.

³⁰ Department of Sanitation, New York, “DSNY and BIC released study showing potential benefits of waste collection zones.” 2016.http://www1.nyc.gov/assets/dsny/downloads/pdf/studies-and-reports/Private_Carting_Press_Release_2016_16_8.pdf.

³¹ Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

³² Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

³³ CLIP, City of Philadelphia. Internal Data. 2016. Unpublished raw data.

Cleaner Public Spaces Priorities

Cleaner Public Spaces: Short-term Priorities

Short-term Cleaner Public Spaces Recommendation 1: Increase Education and Enforcement of Mattress Disposal Regulations

- **Can we do it?**
 - Current Streets Department regulations state that, “Mattresses and box springs shall be fully encased within a sealed, plastic bag.” These regulations are intended to protect sanitation workers from exposure to bed bugs.
 - When a mattress does not fit these conditions curbside, the mattress may not be picked up and a SWEEP officer can issue a violation and/or distribute educational materials on how to properly dispose of mattresses.
 - If a mattress is improperly dumped on a vacant lot or in the street, Sanitation and CLIP workers could be equipped with Tyvek suits as well as receive better information on preventing bed bugs so these workers can safely dispose mattresses.
- **Will it work?**
 - By utilizing SWEEP officers to enforce this regulation more strongly, the City can better educate the public on the need to wrap a mattress and ensure proper disposal.
 - Providing Streets and CLIP workers with the proper education and resources on how to avoid bed bugs will help them better perform their jobs and will reduce their risk exposure when cleaning up illegally dumped mattresses.
- **Is it worth it?**
 - In 2016, there were 1,271 reported cases of dumped and/or improperly set out mattresses.³⁴ By providing better resources, education, and enforcement, the City can reduce the prevalence of this commonly littered item that strains City services and creates unsanitary conditions in neighborhoods.

Short-term Cleaner Public Spaces Recommendation 2: Determine the Most Strategic Placement of Public Trash Waste Receptacles and Map Their Locations

- **Can we do it?**
 - Streets currently uses GIS to plot the locations of all Big Belly receptacles.
 - Planning and Development can assist with compiling and mapping the locations of neighborhood managed waste receptacles (RCOs, NACs).
 - Streets, Commerce, and Community Development Corporations (CDCs) can work to map commercial building receptacles.
 - Streets currently has an adopt-a-bin program for Block Captains that can be digitized with GIS surveys.
- **Will it work?**
 - The Behavioral Science Subcommittee is currently working to collect scientific evidence on the most strategic placement of public waste receptacles.
 - Depending on study results, we can better understand the impact of placing waste receptacles near areas of consumption and how to prevent short dumping.
- **Is it worth it?**
 - The City currently spends millions of dollars each year picking up litter.
 - According to a study conducted by Disneyworld, people will walk an average of 30 steps with trash before dropping it on the ground.³⁵
 - By determining the most strategic placement and partnering with communities and businesses, we can ensure that the City budget expenditures for maintenance of waste receptacles is less than the cost for picking up litter.
 - Promoting the practice of mapping cans will allow us to compare their locations with litter index data to understand the impact of these public waste receptacles, develop a better understanding of where public waste receptacles exist, and ensure efficient servicing of these waste receptacles.

Short-term Cleaner Public Spaces Recommendation 3: Study Increased Access to Lidded Residential Recycling Bins

- **Can we do it?**
 - When single stream recycling first began, Streets provided lids for the square recycling bins, and these lids are still available from the manufacturer and can be purchased by Streets for public distribution if resources are available.

³⁴ Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

³⁵ “Top Five Weirdest Disney Facts,” World Of Walt, December 08, 2016, accessed June 19, 2017, <https://www.worldofwalt.com/weirdest-disney-facts.html>.

- Streets Department regulations state that, “All bags, bundles, containers, and receptacles shall be secured and covered if necessary so as to prevent their contents from being scattered or being carried away by wind or precipitation.”
- **Will it work?**
 - Lids on bins prevent litter from blowing out of the bins and prevent passersby from contaminating residential recycling bins with trash.
 - The Cabinet is currently conducting a behavioral study on the cost/benefit and impact on recycling rates caused by investing in bins that are more accessible to residents as well as the effects of litter reduction by lidded bins and the staff resources needed to manage lids.
- **Is it worth it?**
 - In 2016, the City of Philadelphia received and fulfilled requests for 40,000 recycling bins, so it is our preliminary hypothesis that easier access to bins will increase recycling rates.³⁶
 - Bins cost an average of \$5 per unit, with a total annual cost of \$200,000. In FY 16, Philadelphia saved almost \$5,000,000 by recycling material rather than sending it to a landfill.³⁷
 - Lids on bins will likely reduce the amount of litter that blows from the bins, thus reducing strains on City services to clean up litter, as well as reduce contamination of the recycling stream.

Short-term Cleaner Public Spaces Recommendation 4: Increase Outdoor Recycling at Parks and Recreation Sites

- **Can we do it?**
 - Executive Order 5-96 mandates recycling in municipal facilities.
 - Philadelphia Parks and Recreation (PPR) is currently conducting a pilot outdoor recycling program in recreation centers in the northwest section of the city with a plan to provide outdoor recycling for all recreation centers by 2019.
 - PPR concessions is working on updating their RFPs to mandate recycling for vendors using PPR facilities.
- **Will it work?**
 - Providing easy opportunities for facility users to recycle will inherently increase diversion rates and reduce the amount of recyclable materials entering the waste stream.
 - Preliminary data shows that providing recycling cans stops Parks and Recreation users from littering plastic bottles.

- Recycling bin contamination rates for the PPR pilot have been very low.
- Parks and Recreation is currently considering reorganizing their waste pick up systems to take recycling and waste collections in house.
- **Is it worth it?**
 - Recreation centers are major areas for community development, and providing these bins further educates the community and diverts recyclables from the waste stream.
 - Recycling is more cost effective than disposing of material in a landfill.
 - Recycling fits with the mission and brings PPR in line with other park systems around the country.

Short-term Cleaner Public Spaces Recommendation 5: Increase Removal of Illegal Clothing Donation Bins

- **Can we do it?**
 - L&I is currently working with Streets to inspect and remove illegal clothing bins.
 - Many of these bins are illegally placed and can be legally removed.
- **Will it work?**
 - In 2016, L&I identified for removal by the Streets Department 187 illegal clothing bins.³⁸
 - Community education is needed to increase 311 reporting of illegal clothing bins.
- **Is it worth it?**
 - Many of these bins are unsightly, poorly maintained, and invite short dumping.
 - Removing these magnets for illegal short dumping will improve the quality of life in a neighborhood.

Short-term Cleaner Public Spaces Recommendation 6: Expand Access to Sanitation Convenience Centers

- **Can we do it?**
 - Streets doubled the number of convenience centers from three to six in 2013. These centers accept household solid waste, e-waste, tires, polystyrene, universal waste, household hazardous waste, bulk items, etc.
 - The Cabinet can work with CDCs, RCOs, community groups, elected officials, and block captains to help organize more community pick up days for citizens to conveniently drop off their bulk materials.

³⁶Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

³⁷Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

³⁸Streets Department, City of Philadelphia. Annual Report. 2016. Unpublished raw data.

- Although commercial trucks are prohibited from using sanitation centers, Streets has revised regulations to let resident or community trucks to use these facilities.
- Certain municipal facilities, such as neighborhood recreation centers, may also be able to serve as e-waste and universal waste drop off points in order to make these services more convenient.
- Streets has developed and implemented a pilot for designating consistent monthly nights in neighborhoods where a trash truck can be stationed on a prominent corner of the neighborhood for residents to utilize in addition to their normal collection day.
- **Will it work?**
 - The Sanitation Convenience Centers are ideally located in their current positions and by expanding access through partnerships and policy changes, residents can have more opportunities to properly dispose of trash.
 - Community pick ups would require an exemption for larger trucks to enter the facilities. Streets could create a sticker or placard for community vehicles involved in the program.
 - Streets data shows that 26th and Glenwood, the center in the most densely populated neighborhood, is the least-used.³⁹ This suggests that access issues are more related to access to a vehicle to move large goods than to proximity to a convenience center.
- **Is it worth it?**
 - Improved access to these centers would give more access to non-single stream recyclable goods, thus increasing our recycling diversion rates.
 - More access to proper disposal services could help reduce illegal short dumping.

Short-term Cleaner Public Spaces Recommendation 7: Construct Trash Corrals for Recreation Centers

- **Can we do it?**
 - Many recreation centers do not have outdoor or indoor trash storage, and trash is often placed near the curb before collection days, which invites residential short dumping.
 - There is often adequate space at these centers for a fenced-in “corral” to store trash securely.

- **Will it work?**
 - Not putting trash curbside for long periods of time will reduce the opportunities for residential and commercial short dumping.
 - A fenced-in area that obscures the trash will lead to more controlled and aesthetically pleasing landscapes.
- **Is it worth it?**
 - Residential short dumping is a major problem affecting Philadelphia Parks and Recreation. In one study, it was found that 60 percent of a Grounds Maintenance and Facility Caretaker’s day is spent picking up trash.⁴⁰ A more controlled storage system would increase the amount of time available for other maintenance tasks.

Short-term Cleaner Public Spaces Recommendation 8: Increase Proactive Solutions for Illegal Sign Abatement

- **Can we do it?**
 - The Cabinet currently has a working group focused on abating illegal signs with representation from the City, music promotion, the Board of Elections, and advocacy groups.
 - Philadelphia Code 10-1200 makes it illegal to post private signs on public property.
 - The City previously led a successful campaign to take down illegal signs and fine people and entities for putting up illegal signs.
 - The music community and Board of Elections are supportive of using proactive solutions to ensure that their constituents can promote while at the same time following the law and leading to a safer city.
- **Will it work?**
 - By developing proactive solutions with stronger education and enforcement, community members and City agencies can more effectively remove these illegal signs.
- **Is it worth it?**
 - These unsightly signs are typically made of paper or other flimsy material and become litter on streets once they detach.

³⁹ Ibid.

⁴⁰ Department of Parks and Recreation, City of Philadelphia. 2016. Unpublished raw data.

Cleaner Public Spaces: Long-term Priorities

Long-term Cleaner Public Spaces Recommendation 1: Consider Restoration of Street Sweeping

- **Can we do it?**
 - Streets currently performs mechanical street sweeping in Center City and some commercial corridors.
 - Many private entities either conduct street sweeping or are building capacity for street sweeping.
- **Will it work?**
 - Regularly scheduled street cleaning is practiced in many cities, but presents significant operational, financial, and political challenges and considerations to fully implement city-wide. These challenges must be studied, quantified, and fully understood before making any commitments to restore service.
 - If financially and operationally feasible, street sweeping could begin as a pilot program in limited areas, which could be determined by community support and information from the litter index.
- **Is it worth it?**
 - The Streets Department estimates \$6 million is needed for an effective city-wide street sweeping program.⁴¹
 - Street sweeping can reduce street dirt and grime and the amount of debris entering gutters and waterways.

Long-term Cleaner Public Spaces Recommendation 2: Increase Support of Temporary and Long-term Community Solutions to Activate and Secure Vacant Lots

- **Can we do it?**
 - Many programs such as urban gardening, mural arts, and Pennsylvania Horticultural Society (PHS) programs are equipped to help residents activate and secure vacant lots.
 - CDCs and RCOs can also help educate and support neighbors to activate and secure vacant lots.
 - Public Property would need to create a waiver system, in accordance with the Law Department, to limit liability issues.
 - The City can work with community and private landholders to activate and secure vacant lots.
- **Will it work?**
 - On-site activity and stewardship has been proven to prevent short dumping and litter accumulation on these lots.

- The City must be transparent with community members to ensure that members understand that this may be a short-term solution, which can be modeled after the existing PRA leases for urban gardening.
- In an effort to encourage neighbors to invest in short-term use, the City could provide resources to assist community in activating and securing these lots.
- **Is it worth it?**
 - Philadelphia currently has 21,962 private vacant lots and 5,015 publicly-owned vacant lots.⁴²
 - CLIP responded to 15,000 requests for cleaning vacant lots and Streets abated 921 short dumps on vacant lots. Using the Keep Pennsylvania Beautiful metric of \$619 per ton for a dumping clean up, this led to over \$8 million in cleanup costs for the City.⁴³

⁴¹ Ibid.

⁴² Department of Planning and Development, City of Philadelphia. Internal data. 2017. Raw unpublished data.

⁴³ MSW Consultants. Statewide Illegal Dumping Cost Research. Report. Keep Pennsylvania Beautiful. August 2014. http://www.keppabeautiful.org/wp-content/uploads/2016/09/KPB-Statewide-Illegal-Dumping-Cost-Research_Final_8-20-2014.pdf.

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