



BURNS  MCDONNELL

THE COST OF LITTER & ILLEGAL DUMPING IN PENNSYLVANIA

A STUDY OF NINE CITIES
ACROSS THE COMMONWEALTH

JANUARY 2020

SUBMITTED TO:



KEEP
PENNSYLVANIA
Beautiful

KEEP AMERICA BEAUTIFUL AFFILIATE



CREATE AMAZING.

3650 Mansell Road, Suite 300
Alpharetta, GA 30022
burnsmcd.com

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- Shannon Reiter, President, Keep Pennsylvania Beautiful

PRIMARY FUNDERS

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KEY CONTRIBUTORS

Allentown, PA

- City of Allentown:
 - Department of Community and Economic Development
 - Department of Parks & Recreation
 - Department of Public Works
- Keep Allentown Beautiful

Altoona, PA

- City of Altoona:
 - Codes & Inspections Department
 - Community Development Department
 - Department of Public Works
- Altoona Water Authority
- Blair County Conservation District
- Central Blair Recreation Commission
- Intermunicipal Relations Committee
- Keep Blair County Beautiful

Erie, PA

- City of Erie:
 - Department of Public Works, Property and Parks
 - Office of the Mayor
- Erie County Department of Planning

- Erie Downtown Partnership
- Keep Erie County Beautiful
- Lake Erie Arboretum at Frontier Park
- Neighborhood Resource Organization

Harrisburg, PA

- City of Harrisburg Department of Public Works
- Capital Region Water
- Harrisburg Downtown Improvement District
- Harrisburg Housing Authority
- Keep Harrisburg-Dauphin Beautiful
- Tri-County Community Action
- Wildheart Ministries

Lancaster, PA

- City of Lancaster:
 - Department of Planning and Economic Development
 - Department of Public Works
- Keep Lancaster County Beautiful
- Lancaster City Alliance
- Lancaster County Solid Waste Management Authority
- Lancaster Housing Opportunity Partnership
- SoWe Collaborative

Philadelphia, PA

- City of Philadelphia:
 - Department of Commerce
 - Department of Licenses and Inspections
 - Department of Streets
 - Managing Director's Office
 - Parks and Recreation Department
 - Police Department
 - Water Department
 - Zero Waste and Litter Cabinet
- Keep Philadelphia Beautiful
- Southeastern Pennsylvania Transportation Authority

Pittsburgh, PA

- City of Pittsburgh:
 - Department of Public Works
 - Office of the Mayor

- Clean Pittsburgh Commission
- Allegheny CleanWays
- Pennsylvania Resources Council
- Port Authority of Allegheny County

Reading, PA

- City of Reading:
 - Department of Community Development
 - Department of Public Works
 - Police Department
- Barrio Alegría
- Penn State Berks
- Reading Beautification, Inc.
- Reading Downtown Improvement District
- Reading Housing Authority
- Reading Public Library
- South of Penn Task Force

Scranton, PA

- City of Scranton:
 - Department of Public Works
 - Parks and Recreation Department
 - Police Department
- Keep Northeastern PA Beautiful
- Lackawanna River Conservation Association
- Scranton Tomorrow

EXECUTIVE SUMMARY

While litter and illegal dumping are often discussed as social or environmental problems, rarely do we think about their economic impact. Over five years (2014 through 2018), Pennsylvania Department of Transportation spent over \$65 million removing litter and debris from within highway rights-of-way across the state.

The cost of dealing with litter and illegal dumping are quite large for communities as well, but are often obscured because they are dispersed across various governmental departments as well as community-based organizations and volunteer groups. As documented in this study commissioned by Keep Pennsylvania Beautiful and prepared by Burns & McDonnell, nine cities in Pennsylvania spend more than \$68.5 million annually on prevention, education, abatement, and enforcement efforts to address litter and illegal dumping throughout their respective communities.

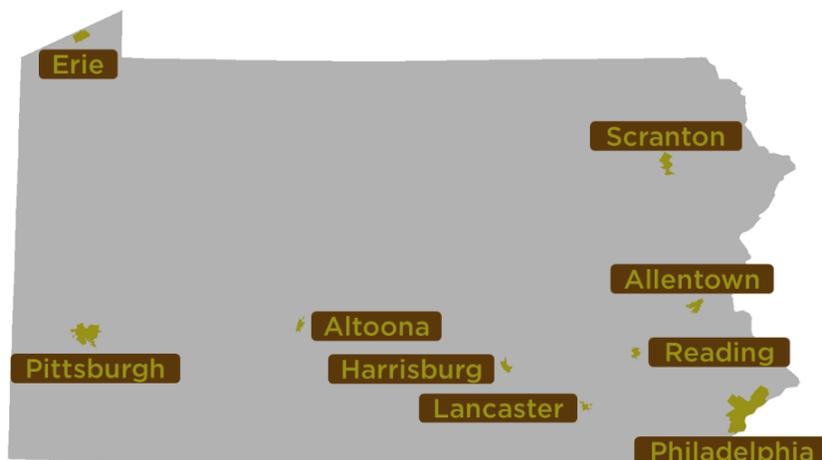
STUDY AT A GLANCE

Purpose: Document the costs incurred by nine cities in Pennsylvania to manage litter and illegal dumping. Together, these cities represent more than 18 percent of the Commonwealth’s population.

Participating Communities: Nine cities representing a wide range of population and geographies participated as case studies, as shown on the map.

Research Approach: Through a combination of interviews, research, and extensive data provided by the participating communities, Burns & McDonnell documented the annual costs for addressing litter and illegal dumping within each city. The Study only includes actual provided costs and does not make data extrapolations.

Costs Included: The Study documents program expenditures from local governments, non-governmental organizations, and non-profits for costs associated with four basic categories of activities related to litter and illegal dumping: prevention, education and outreach, abatement, and enforcement. The Study only includes actual provided costs and does not make data extrapolations. While most cities benefit from significant efforts by volunteers, especially in the area of litter abatement, the Study does not assign a monetary value to the avoided cost of volunteer time. It also does not capture any costs borne by for-profit businesses.



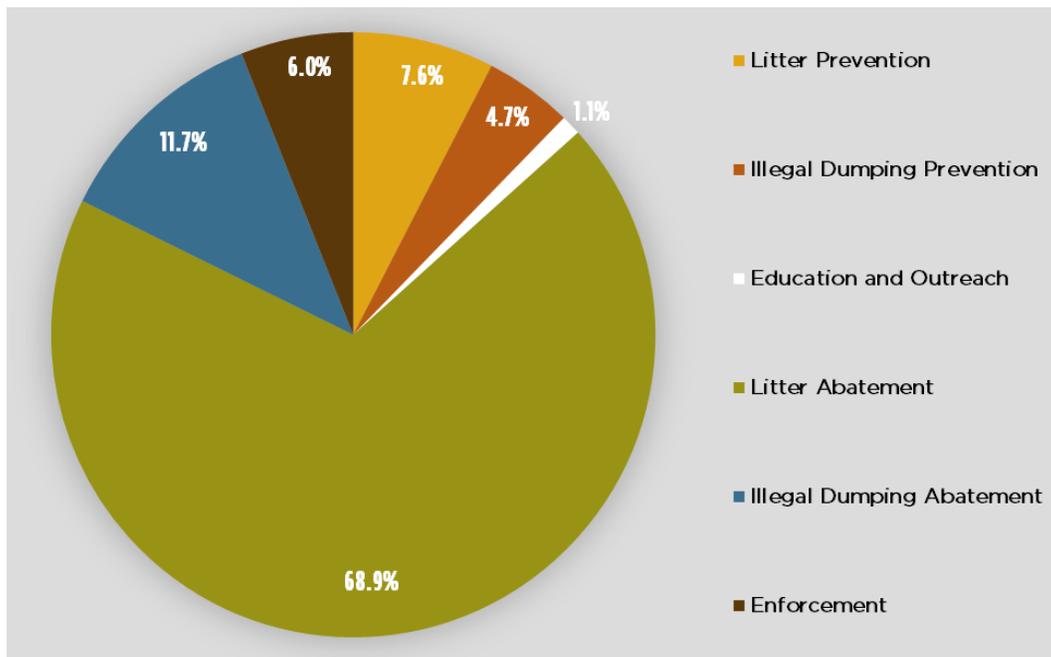
KEY RESULTS

Regardless of size and geography, each of the nine case study cities spend significant sums annually to prevent and clean up litter and illegal dumping. **Together, these nine cities spend more than \$68.5 million annually.**¹

City	Prevention		Education & Outreach	Abatement		Enforcement	Total	Population ¹
	Litter	Illegal Dumping		Litter	Illegal Dumping			
Allentown	\$ 1,291,700	\$ 8,900	\$ 35,000	\$ 2,192,100	\$ 370,200	\$ 669,300	\$ 4,567,200	121,433
Altoona	\$ 227,300	\$ 151,800	\$ 2,300	\$ 260,700	\$ 26,000	\$ 143,500	\$ 811,600	43,702
Erie	\$ 151,100	\$ 498,600	\$ 17,300	\$ 998,400	\$ 207,900	\$ 345,700	\$ 2,219,000	96,471
Harrisburg	\$ 73,400	\$ 34,700	\$ 102,200	\$ 1,242,700	\$ 235,500	\$ 49,000	\$ 1,737,500	49,229
Lancaster	\$ 20,000	\$ 1,000	\$ 5,500	\$ 1,393,300	\$ 7,200	\$ 704,500	\$ 2,131,500	59,420
Philadelphia	\$ 1,217,000	\$ 2,163,400	\$ 547,300	\$ 36,314,700	\$ 6,376,800	\$ 1,778,300	\$ 48,397,500	1,584,138
Pittsburgh	\$ 2,734,400	\$ 246,800	\$ 57,700	\$ 2,706,900	\$ 232,400	\$ 331,300	\$ 6,309,500	301,048
Reading	\$ 70,500	\$ 126,500	\$ 9,400	\$ 1,437,200	\$ 404,600	\$ 29,700	\$ 2,077,900	88,495
Scranton *	\$ 66,400	\$ -	\$ -	\$ 138,800	\$ 26,000	\$ 38,900	\$ 270,100	77,182
Total	\$ 5,851,800	\$ 3,231,700	\$ 776,700	\$ 46,684,800	\$ 7,886,600	\$ 4,090,200	\$ 68,521,800	2,421,118

* Complete cost data was not available from the City of Scranton for the Study.

Total Measured Costs by Activity Category



¹ U.S. Census Bureau, Population Estimates Program (PEP)

OVERVIEW BY ACTIVITY CATEGORY

All costs gathered as part of this Study were placed into one of six categories based on the nature of the activity or program for which the funds were allocated. Provided in the table below are brief descriptions of the types of activities or programs that exemplify each category.

CATEGORY	DESCRIPTION
LITTER PREVENTION	The primary strategy employed by cities, as well as nongovernmental organizations such as Business Improvement Districts, to prevent litter is the provision of trash and recycling receptacles (“litter cans”) in public spaces. The main costs associated with this activity are the labor and vehicles required for regular collection and disposal of material from the litter cans.
ILLEGAL DUMPING PREVENTION	The most effective way to prevent illegal dumping is to provide convenient and affordable options for proper disposal of materials that are commonly dumped such as tires, appliances, and electronics (of particular concern in Pennsylvania because of a statewide landfill ban). These specialized recycling programs may be offered through curbside pickup or at a drop off facility.
EDUCATION & OUTREACH	Programs for educating the public regarding the impacts of litter and illegal dumping can be quite different in each community, and there is no standardized model throughout Pennsylvania. Often the anti-littering message is tied in with information about recycling and environmental health.
LITTER ABATEMENT	Most cities have some form of street sweeping or cleaning program designed to keep their streets and other public rights-of-way free of litter and other debris. These efforts may require the use of automated sweeping machines, or they may consist of crews that sweep and collect material off the ground by hand. Closely related to this is programs that serve to clear littered material out of stormwater inlets and catch-basins. This category also includes the costs associated with implementing volunteer-based litter cleanup events, including large annual events (such as the Great American Cleanup) and smaller ongoing programs led by community-based organizations.
ILLEGAL DUMPING ABATEMENT	When illegal dumping occurs and no one takes responsibility, it ultimately falls to the local government (or another organization working closely with the city) personnel to clean up and dispose of the material. For most cities there is not a dedicated crew that does this every day, but when needed it does require significant manpower and often heavy equipment.
ENFORCEMENT	Most cities have ordinances in place that prohibit behaviors such as littering and illegal dumping, but it is relatively uncommon for local police to take initiative on these issues. More commonly, effective enforcement is carried out through Code Enforcement divisions or through a dedicated program such as SWEEP (Solid Waste Education & Enforcement), where civilian officers issue notices and citations specific to waste-related violations.

CASE STUDIES

The case studies found in this report are intended to highlight the major efforts being undertaken throughout the nine cities analyzed as part of this Study. They are not intended to be an exhaustive account of everything happening in each city, but rather a broad look at the most prominent and unique programs and organizations that bear the most significant direct costs for managing litter and illegal dumping specifically. Each case study is organized in the same order, based on the categories described in this Executive Summary.

Costs used in this Study are based on the most recent full year of data available – in most cases, the data is from Fiscal Year 2018 – and were all rounded to the nearest \$100 for the purposes of the analysis. The cost figures were provided with varying levels of detail depending on the source, and an effort was made to allocate the costs across the activity categories based on both input from city representatives as well as standardized practices across the nine cities. Each case study was reviewed for completeness and accuracy at various points in the process by one or multiple representatives from each city.

CONCLUSION

Across the nine cities examined as part of this Study, a diverse array of governmental agencies and community-based organizations are committing resources to fighting litter and illegal dumping. No two cities are identical in their approaches, but one thing is evident when looking at these costs in aggregate: more resources have been allocated to abatement of litter and illegal dumping than to measures that are categorized as prevention, education and outreach, or enforcement. In this Study about \$54.5 million (or 80 percent) of all analyzed costs were categorized as abatement. Abatement is critical, and in some sense abatement efforts can serve a preventative function through engaging the community around the issue (think volunteer cleanup events) or simply because people are more likely to litter in littered areas or dump at existing dumpsites. Fundamentally though, abatement efforts address the symptoms and impacts of litter and illegal dumping rather than the root cause.

Across the nine cities analyzed, a majority of costs categorized as Litter Prevention and Illegal Dumping Prevention are dedicated to public space litter can programs and specialized recycling programs respectively. Combined, these infrastructure-based solutions are receiving only 13 percent of the total funding analyzed. Education and outreach aimed at informing the community about these issues and how to avoid them is receiving just one percent of the total funding. Enforcement programs serve as a deterrent to littering and illegal dumping by identifying the culprits and punishing the behavior, but they receive just six percent of the total funding. Overall this means that these cities spend about four times as much to remove litter and dumped material from their communities as they do to prevent it from being generated in the first place. In the long run the only way to reduce this cost burden overall will be to invest more in preventative measures, because without them the cost of abatement will only continue to rise.

This Study serves to measure the economic impact of litter and illegal dumping on Pennsylvania's communities, an impact that is often overlooked and rarely tracked at the municipal level. It includes insight from nine cities that represent diverse geography, populations, and local engagement on the issues of litter and illegal dumping. Consequently, the findings are likely applicable to many other communities across the Commonwealth.

ALLENTOWN

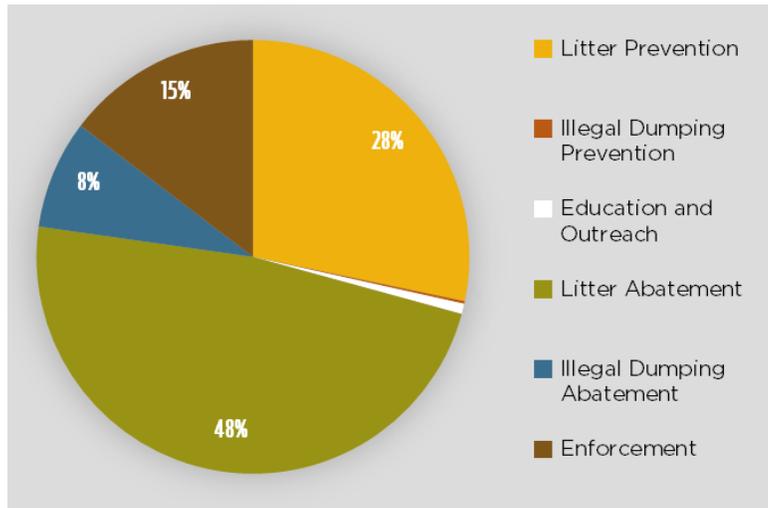
Allentown is Pennsylvania’s third most-populated city, with around 121,000 residents. It is situated along the Lehigh River, in the eastern part of the state between Philadelphia and Scranton.

Allentown is currently the fastest growing city in the Commonwealth and City officials have also noticed a recent uptick in the number of visitors coming to enjoy Allentown’s inviting parks and historic cultural icons over weekends and holidays, largely from the nearby New York City metro area. This growth, in both population and tourism, brings economic benefits to local businesses but is accompanied by increased challenges when it comes to litter and illegal dumping in public spaces.

However, the City of Allentown is well-equipped to manage these issues now and into the future. It provides residents with robust infrastructure for proper disposal of waste and processing of recyclable materials, with a comprehensive set of services both at the curb and through drop-off centers and events.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$1,291,700	\$8,900
Education & Outreach	\$ 35,000	
Abatement	\$2,192,100	\$370,200
Enforcement	\$669,300	
Total Annual Cost	\$4,567,200	



KEY TAKEAWAYS

- ▶ Efforts to combat litter and illegal dumping in Allentown are concentrated within the City government, which is spending almost \$5 million per year on the relevant programs. As a result, there is less need for non-profit agencies and community organizations to expend resources keeping their neighborhoods clean.

PREVENTION

The City of Allentown provides refuse collection twice per week to its residents, instead of the once per week offering by other communities, in part to discourage residents from dumping their excess waste illegally. Recycling is collected once per week; residents are provided with free recycling bins and there is no limit to the amount of recyclables they can set out. This municipal hauling offering includes free weekly pickup of one bulky item (such as furniture) or up to forty pounds of construction material. A city crew collects appliances and other large metal items once a week by appointment.

One unique feature of the municipal trash and recycling program is that it offers collection services at multifamily properties as well, for buildings with up to 25 units, and even small businesses. This is particularly useful for businesses in the dense center city area where space for dumpster collection is prohibitive. If a business contracts with a private hauler, it is required to submit an annual Recycling Report including weight slips or receipts to show recycling tonnages (unless their hauler reports for them). This policy ensures that Allentown gathers comprehensive data regarding recycling tonnages generated within its boundaries, which impacts the amount of funding the City receives annually through the Pennsylvania Department of Environmental Protection's Recycling Performance Grant program.

The City also manages a recycling drop-off center (shown below on the left) that is open 24/7 to everyone, including non-residents, and accepts sorted recyclable materials that are accepted curbside as well as scrap metal and usable clothing. For electronics, the City operates a monthly drop-off event (shown below on the right) that collects over 100 tons of material annually.



The Special Events team operates out of the Department of Community and Economic Development and works to prevent litter from special events held throughout the City. They require event organizers to submit a solid waste management plan that includes the provision of recycling. They will also hold organizers responsible for cleaning up after events, and in cases where debris is left behind they will coordinate with the Parks Department or Public Works to perform the cleanup and then charge the organizers for the labor and disposal costs.

Allentown is home to more than 650 public-space litter cans, which is the equivalent of almost 40 cans for every square mile of the City. In local parks, the City has experimented with different types of cans in order to decrease littering, recycling contamination, and the costs associated with emptying the cans. The picture to the right shows an installation of Sybertech receptacles in one of Allentown's parks, which are self-compacting and extend underground to achieve a capacity of over 3 cubic yards each.



Allentown Rescue Mission Clean Team

With over 650 litter cans across the City, it takes a lot of manpower to empty them regularly and to keep the areas around them clean. The City spends over one million dollars annually to service this network of litter cans, and supplements their own crews' efforts through a contract with the Allentown Rescue Mission "Clean Team". This workforce is comprised of formerly-homeless men who graduated from the Rescue Mission's Christian Living programs and are now able to work, receive monetary stipends and receive room and board. The team collects around 60 tons of material annually, keeping a significant amount of litter off of Allentown streets throughout its commercial districts and surrounding neighborhoods.



EDUCATION AND OUTREACH

The Department of Parks and Recreation has over 6,000 followers on Facebook, and regularly uses its page for outreach to citizens about litter prevention, including information specific to the impacts that special events and out-of-town visitors have had on the cleanliness of local parks. The City's Bureau of Recycling & Solid Waste (RSW) is active on Facebook, using it as a platform for disseminating everything from critical event information to general educational materials regarding recycling and litter prevention. They reach residents with information about recycling through an annual mailer sent with the property tax bill, and they reach renters with direct-mail communications to ensure that they receive the information as well. The City's many programs and events geared toward educating and abating litter include:

- Single Stream Scottie (shown to the right): the official mascot for the Bureau of Recycling & Solid Waste. Scottie visits schools and public events to teach children about the importance of recycling and preventing litter.
- "Earth Day in the Park!": an annual Earth Day festival hosted by the City that includes opportunities for environmental education.
- Summer Playground Program: a program for elementary and middle school students during the summer with programming related to recycling and litter prevention held in the City's 18 parks, including daily efforts to keep the parks clean of litter and debris.



ABATEMENT: LITTER

The City departments responsible for providing litter abatement in Allentown are summarized in the table below. Collectively, they spend over two million dollars annually helping keep the community litter-free.

ORGANIZATION/PROGRAM	DESCRIPTION
<p>CITY OF ALLENTOWN BUREAU OF RECYCLING & SOLID WASTE (RSW)</p>	<p>RSW provides free supplies and hauling for any community group that notifies them about an organized neighborhood cleanup event.</p> <p>The Great Allentown Cleanup is a single-day event occurring in April (usually planned around Earth Day) where volunteers come together to clean up their neighborhoods and communities by picking up litter and cleaning/restoring common areas. The City provides equipment and tools for the day to help volunteers.</p> <p>RSW also houses Keep Allentown Beautiful, the local Keep Pennsylvania Beautiful affiliate. This helps ensure that litter prevention and abatement are prioritized alongside other waste and recycling-related issues.</p>
<p>CITY OF ALLENTOWN BUREAU OF STREETS</p>	<p>Four street sweeper crews are active five days per week across the City's sixteen districts, operating large automated sweeper machines to keep streets and sidewalks clear of litter and leaves. Separate "hand crews" work daily to keep sidewalks, alleys, and stormwater inlets free of debris.</p>
<p>CITY OF ALLENTOWN PARKS & RECREATION DEPARTMENT</p>	<p>Allentown public parks are constantly combating the presence of litter and illegal dumping. The Parks Department has two crews working in the City parks five days a week. The crews are dedicated to cleaning parks up and emptying litter baskets. There is a high concentration of litter in smaller urban "pocket parks", and more recently in the City's waterfront parks due to an influx of visitors from out of town. Unfortunately, the rise in out-of-towners has also correlated with a noticeable increase in litter.</p>

ABATEMENT: ILLEGAL DUMPING



The City's Bureau of Recycling & Solid Waste has a dedicated crew that operates five days a week throughout the City and has access to vehicles and equipment necessary to handle major litter or illegal dumping. This same crew is also responsible for graffiti removal, emptying public litter cans, and the appliance pickup program. They receive information from the public, police, and other department personnel as well as the Solid Waste Education and Enforcement Program (SWEEP) officers on where

to direct their efforts. When supplemental assistance is needed, the Bureau of Streets “hand crew” also provides support for cleaning up illegal dump sites.

ENFORCEMENT

The Bureau of Recycling & Solid Waste employs four SWEEP officers who are responsible for enforcing the City’s Neighborhood Improvement and Solid Waste ordinances. The SWEEP officers field complaints and investigate littered properties and instances of illegal dumping. In addition, SWEEP officers provide proactive education in the community around these issues. They can issue “SWEEP tickets” for litter and illegal dumping violations directly, and they can write citations to property owners. If a property remains out of compliance, the City can take action by posting an Immediate Public Nuisance notice which gives the property owner 72 hours for corrective action. When checking back on the property, if it remains out of compliance, the officers will coordinate the necessary cleanup efforts and add the cost of cleanup to the total fine amount associated with the ticket.

A location that also experiences illegal dumping activity is the City’s recycling drop off center. Significant dumping occurs there at least twice each week, and it is often large amounts of construction and demolition material or household furniture. The City has deployed seven cameras at this site which they monitor daily; when they are able to identify the plate number of an offender, they send the information to PennDOT to obtain the name of the owner. Usually they issue a SWEEP ticket and will charge the individual for their cost to clean up the site.

Ordinances were updated to allow other departments to issue SWEEP tickets as well, including the Health Bureau and Engineering Bureau. Annually, SWEEP officers in Allentown issue over 900 tickets for accumulation of litter on properties, over 30 for illegal dumping, and over 3,000 for trash related violations such as improper storage and improper set-out at the curb.

ALTOONA

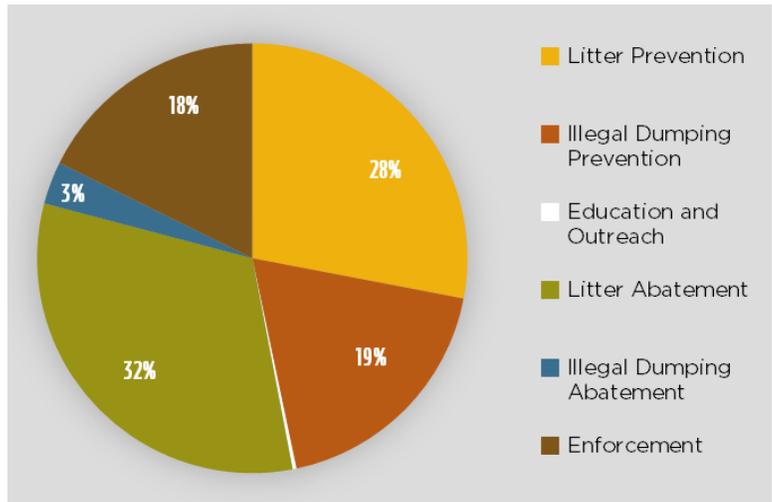
Altoona is the 11th largest city in the Commonwealth of Pennsylvania with approximately 43,700 residents. It is located in Blair County, in the center of the commonwealth and at the base of the Allegheny Mountains.

The City does not provide residential curbside refuse collection services for trash or recycling. Instead, residents are required to contract with one of 20 different private haulers. All haulers must report on the properties they service, and the City estimates based on this reporting that around 10% of residents do not have refuse collection service in place. Lack of adequate residential refuse service inevitably results in increased littering and illegal dumping activity. With over twenty companies actively hauling residential waste, it is a challenge to track and regulate them. All of these different trucks on Altoona streets also potentially creates a problem due to unsecured loads and their resulting debris.

The Altoona community spends over \$600,000 per year on activities related to litter and illegal dumping, and these expenditures are split somewhat evenly between activities related to litter prevention, illegal dumping prevention, litter abatement, and enforcement.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$227,300	\$151,800
Education & Outreach	\$2,300	
Abatement	\$260,700	\$26,000
Enforcement	\$143,500	
Total Annual Cost	\$811,600	



KEY TAKEAWAYS

- ▶ An estimated one out of every ten households do not have refuse collection services in place, and this is believed to be a driver of litter and illegal dumping activity.
- ▶ There is very little funding in Altoona for education and outreach efforts related to litter and illegal dumping.

PREVENTION

City Code requires residents to store refuse in tightly covered metal or plastic containers, and all haulers are required to enclose refuse completely within their vehicles during transport. Despite these measures, it should be noted that staff from the City and IRC believe some residents and haulers are not properly securing material resulting in stray refuse becoming litter throughout the community.

There are approximately 300 litter cans throughout the City. The Downtown area is home to the highest concentration of litter cans, where they can be found every twenty feet in high-traffic areas. There are over 50 located in Altoona's public parks. The Central Blair Recreation Commission (CBRC) services and maintains the cans located inside parks, while the Department of Public Works services and maintains the cans located elsewhere throughout the City including along the City's greenways.

InterMunicipal Relations Committee (IRC) Offers Services to Prevent Illegal Dumping

IRC – a council of governments consisting of the City of Altoona, Logan Township, and Hollidaysburg Borough – was initially established to address the needs of the three municipalities related to recycling, when it became a requirement under Pennsylvania Act 101 in 1988. Today the IRC assists member municipalities with a host of issues, including combating litter and illegal dumping.

The following is a photo of the Buckhorn Facility managed by IRC, providing recycling services to Altoona residents which are essential to preventing illegal dumping. In 2018, Buckhorn Facility managed over 455 tons of material for proper disposal including source separated recyclables (e.g. paper, plastic, metal, and glass), hazardous waste, electronics, automotive materials, and yard waste.



Mayoral Beautification Initiative

The City of Altoona collaborates with IRC and several local community groups to carry out the Mayoral Beautification Initiative, which is intended to promote collaboration in enhancing the City and improving residents' quality of life. The initiative includes three main programs:

- The **Adopt-a-Median** program provides small grants (less than \$10,000 each) to neighborhood groups such as HOAs, Improvement Associations, and Neighborhood Watch Groups to perform roadside beautification projects.
- The **Adopt-a-Spot** program supports individuals or groups who volunteer to keep a specific area of the city free of litter and graffiti.
- The **Public Right-of-Way Projects** program provides funding for projects proposed by community groups that include improvements in public spaces. These projects often include the installation of litter cans to prevent future littering.

EDUCATION AND OUTREACH

IRC serves citizens of all three municipalities with unified and consistent education and outreach regarding litter, illegal dumping, and proper disposal (recycling practices), and upcoming events for recycling and community cleanup activities. For litter and illegal dumping, IRC’s outreach is targeted at both residents and haulers in an effort to combat both of these important sources of improper disposal across the community. The IRC provides residents the opportunity to utilize the My-Waste App to receive reminders on refuse and recycling schedules and makes lidded recycling containers available to residents for free to use for curbside recycling services. For haulers, IRC provides education about the City’s ordinances including guidelines for vehicle tie-down requirements to prevent unintentional littering.

The Altoona Water Authority also provides litter education and outreach in the community, including presentations to students at different educational levels (elementary, middle school, high school and college). For example, one presentation addresses flooding that results from the accumulation of litter and debris in the City’s stormwater conveyance systems.

ABATEMENT: LITTER

Organizations throughout the Altoona community coordinate the removal of litter through a variety of programs and cleanup efforts, as listed below.

ORGANIZATION/PROGRAM	DESCRIPTION
ALTOONA AREA SCHOOL DISTRICT	The local school district leads the “Toona Tuneup” each spring, involving almost 700 students and teachers to clean up parks and streets across the City.
ALTOONA COMMUNITY CLEANUP DAY	October 2019 marked Altoona’s second annual Community Cleanup Day, an event organized by the City in partnership with United Way of Blair County. Each year the event has focused on a specific block, mobilizing volunteers to clean it up and then implement some form of lasting improvement.
ALTOONA WATER AUTHORITY (AWA)	The local Water Authority supports volunteer cleanup efforts throughout the year by hauling and disposing of collected material at no cost. For example, a group of about 20 retired volunteers regularly perform cleanups in the Kettle watershed, leaving all their trash bags for AWA to haul away after they finish.
BLAIR COUNTY CONSERVATION DISTRICT (BCCD)	The BCCD is a local agency that provides conservation-based programs and services to the residents of Blair County, and a member of its staff serves on the Keep Blair County Beautiful Board of Directors. BCCD acts as a local partner for many community-based cleanup events that happen throughout the year by hauling and

	disposing of collected material using the department’s own staff, truck and trailer.
CITY OF ALTOONA PUBLIC WORKS DEPARTMENT	The City’s Public Works Department manages the street sweeping program, which serves to keep Altoona’s streets from accumulating litter. In 2018 this program resulted in the collection of over 470,000 pounds of debris.
CENTRAL BLAIR RECREATION COMMISSION (CBRC)	Prior to any special events that occur in public areas, the Parks crew will perform a sweep of the space to clear away any litter or debris. They are also responsible for removing litter that is left behind after the events.
GREAT AMERICAN CLEANUP	The Great American Cleanup is a major event every year in Altoona, and event partners include Keep Blair County Beautiful, IRC, BCCD, and AWA as well as other corporate and community volunteers. The event alternates each year between Altoona’s two watersheds, and it is focused on cleaning the waterways to prevent the degradation of natural resources and the community’s water supply. The event is promoted using posters, Facebook event postings, and a promotional flyer in the ratepayers’ water bills.
INTERGOVERNMENTAL RELATIONS COMMITTEE (IRC)	The IRC houses the local Keep America Beautiful affiliate Keep Blair Beautiful. They organize major community cleanup events in the spring and fall each year, averaging twenty tons of material collected annually.

ABATEMENT: ILLEGAL DUMPING



In Altoona, illegal dumping tends to occur most frequently in areas where the population density is lower and this often means that it happens outside of the City limits. But for illegal dumping that does occur in the City, it is not always clear who is responsible for abatement and as a result specific instances of dumping will often go unaddressed. When a dump site becomes an obvious public nuisance the Department of Public Works’ Street Crews will take responsibility for cleanup, and in some instances the IRC will deploy resources to abate dumpsites.

In addition, the EcoAction Club, a student group from an area high school, organizes a tire cleanup each spring at the Plane Nine Reservoir. The event is supported by the Altoona Water Authority,

which hauls and disposes of the tires and other illegally dumped materials collected during the event.

ENFORCEMENT

The Department of Codes and Inspections administers the Property Maintenance Code which helps enforce health, safety, and quality of life in the community including the prevention of the “accumulation of garbage”. When a Code Enforcement Officer encounters activity in conflict with this Code, he or she issues a Notice of Violation. The Officer will then give the property owner a chance to resolve the issue and upon reinspection will close the case if they have done so. Otherwise they will re-inspect every ten days up to three times total, charging a \$75 re-inspection fee each time. If the issue still isn’t resolved, the Officers will issue a Summary Citation with the Magisterial District Judge.

From 2016 - 2018, the department issued a total of 2,563 garbage violations, and about 15% of these resulted in criminal prosecution. Repeat violations with two or more guilty convictions can proceed to the County Court for misdemeanor charges. The overall compliance rate has increased from 52% in 2016 to 87% in 2018.

Partner organizations such as the Blair County Conservation District assist the City by reporting any illegal dumping or major litter they spot while they are out in the community. The IRC and Central Blair Recreation Commission assist by issuing citations directly on behalf of the City. When they come across dump sites, they inspect the contents for any indications as to where the material originated (e.g. mailing addresses, hauler information, etc.) and if they find reliable evidence they are able to file official citations under their own badge number. Between 2016 – 2018 they have averaged approximately 28 citations annually, augmenting the capability of the City to track and enforce these types of offenses.

ERIE

Erie is the fourth-largest city in Pennsylvania with an estimated population of just over 96,000.

The City is situated in northwestern Pennsylvania on the shore of the Presque Isle Bay and Lake Erie. Litter is a particularly sensitive issue for a community that relies so heavily on this body of water as a natural and economic resource.

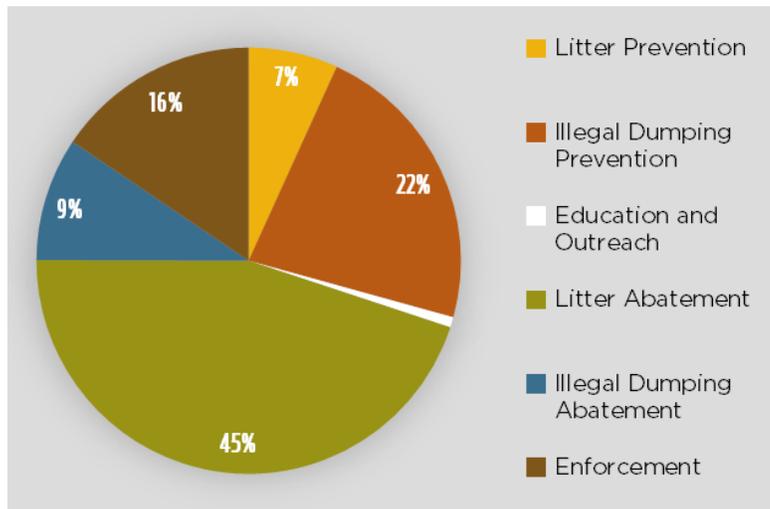
Tourism plays a significant role in the Erie economy, with over four million people visiting Presque Isle State Park and other maritime attractions each year.

Maintaining the health of these aquatic resources is critical to supporting the local economy. While there is certainly a focus on preventing litter and illegal dumping along the bayfront, the City of Erie also works to educate citizens about the fact that litter created anywhere throughout the City ultimately will end up in the bay.

Of the 4,800 calls fielded each year by the City’s Citizen Response Center, around 900 are specific to illegal dumping and around 1,200 are specific to littered properties on average each year. This demonstrates that concern for the issue extends beyond local government and is a priority for the citizens of Erie as well.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$151,100	\$498,600
Education & Outreach	\$17,300	
Abatement	\$998,400	\$207,900
Enforcement	\$345,700	
Total Annual Cost	\$2,219,000	



KEY TAKEAWAYS

- ▶ Between Presque Isle Bay and the City’s 50 public parks, the preservation of Erie’s natural resources is a primary motivation for investments in the prevention or abatement of litter and illegal dumping.
- ▶ In the first year of the City’s new Quality of Life ticketing system, over half of tickets issued have been specific to litter or garbage accumulation.

PREVENTION

The City of Erie provides weekly residential collection of refuse, recycling, and yard debris. To discourage illegal dumping, the City provides pickup of up to three bulky items in conjunction with scheduled trash collection. Glass and most plastics (other than bottles, jugs, and jars) have been recently eliminated from the recycling program due to the absence of a local market for those materials, which could mean that more of those materials end up as litter. The City sponsors two recycling events every May, one for electronics and the other for tires (where citizens can bring up to six tires each). Erie County operates a monthly event for recycling electronics and household hazardous waste; while the event is held outside of the City of Erie, in 2018 approximately 65% of visitors were Erie residents and the County spent a combined \$500,000 providing this service for Erie County residents, including the City of Erie.

The City services 300 public space litter cans throughout Erie, many of which are found in the City's parks. The Lake Erie Arboretum at Frontier Park alone has 40 cans throughout the park. Erie Downtown Partnership also maintains numerous litter cans in the downtown district, and the Erie Port Authority maintains and services another 113 cans along the bayfront. These are further supplemented by a number of litter cans installed by an organization called Keep Our Bayfront Beautiful (KOBBS), a coalition of businesses that are located on the bayfront and are ultimately dependent on tourism and other economic activity centered around the bay. These businesses recognize the value of keeping the bayfront, as well as the bay itself, free of litter and debris. KOBBS funds the installation of new cans and commits to emptying them and disposing of the collected waste in their own dumpsters. Keep Erie County Beautiful and Erie Downtown Partnership installed cigarette butt disposal containers in commercial areas and public parks, and they partner with local businesses and the City to take responsibility for emptying and maintaining them.

EDUCATION AND OUTREACH

The City's website contains extensive information on how to recycle. For the many items that the City or County are not able to recycle, the website identifies local businesses that will accept each item and even includes instructions on how to best handle the material. The Department of Public Works also releases an annual recycling guide to remind residents how to handle the most important recyclable materials, and each year it includes articles about the impacts of illegal dumping and the importance of preserving the region's water resources.



The City's Sustainability Coordinator implements programs to engage the community and educate the public as to the harmful impacts of litter and illegal dumping. The Sustainability Coordinator organizes workshops and presentations in local schools and at community events to teach children about the issue, and partners with neighborhood groups in their efforts to keep their communities litter-free. One example has been a project to stencil an anti-litter message on local storm drains (shown in the picture to the left).

ABATEMENT: LITTER

The organizations and programs primarily responsible for driving litter abatement efforts in Erie are summarized in the table below.

ORGANIZATION/PROGRAM	DESCRIPTION
<p>CITY OF ERIE DEPARTMENT OF PUBLIC WORKS, PROPERTY AND PARKS</p>	<p>The City of Erie actively collects litter from all 47 public parks to ensure that they are clean and inviting for residents. Their Adopt-A-Park program allows local community groups and businesses to take ownership over the maintenance and improvement of a park as long as they can organize at least two cleanup events each year. Additionally, the Department maintains litter debris catchers on Cascade Creek and Mill Creek to catch any litter and debris before it enters Presque Isle Bay.</p>
<p>ENVIRONMENT ERIE</p>	<p>Environment Erie dissolved in December of 2019, but was a local non-profit organization that educated local residents on recycling and participated in cleanup efforts across the City. The events Environment Erie regularly sponsored included composting workshops, park cleanups through the Erie Adopt-a-Park Program, neighborhood cleanups, and stormwater management programs that prevent debris from entering waterways.</p>
<p>ERIE DOWNTOWN PARTNERSHIP (EDP)</p>	<p>As a business improvement district, EDP provides maintenance services to keep the sidewalks and other rights-of-way clear of litter and debris. In 2015 they received a grant from Keep America Beautiful to deploy 150 litter cans and cigarette disposal stations throughout Erie’s downtown district. In 2019 they collected over 16 tons of litter and removed an estimated 50,000 cigarette butts from the district.</p> 

ORGANIZATION/PROGRAM	DESCRIPTION
GANNON UNIVERSITY	<p>Gannon University organizes GIVE (Gannon’s Invitation to Volunteer Everywhere) each September as a one-day event to mobilize volunteers across a range of community improvement projects. Many of these cleanup efforts, including 2019 projects to clean up pocket parks and the surrounding neighborhood in the West Bayfront community.</p>
KEEP ERIE COUNTY BEAUTIFUL	<p>Keep Erie County Beautiful organizes the local Great American Cleanup, which is a major event in Erie each Spring. The 2019 event included about 1,700 volunteers over about 40 separate sites. Supplies for the cleanups are donated by Keep America Beautiful and the Pennsylvania Department of Environmental Protection, and distributed through PennDOT.</p>
INTERNATIONAL COASTAL CLEANUP (ICC)	<p>The ICC is a national initiative led by the Ocean Conservancy, and Keep Erie County Beautiful has organized a local ICC cleanup event each year for the last seventeen years. The local ICC consists of cleanups across around twenty different sites with an average of almost fifty volunteers per site. Most of the sites are along the beaches or creeks, as the event has a mission of removing pollution and debris from local waterways. Supplies for the event are provided by Keep Pennsylvania Beautiful and Waste Management provides free disposal for all collected material.</p> <p>Gannon University Team from the 2018 Erie ICC:</p> 
LAKE ERIE ARBORETUM AT FRONTIER (LEAF)	<p>LEAF staff works to keep the arboretum clean and safe, and they organize volunteer cleanup projects throughout the year.</p>
NEIGHBORHOOD RESOURCES ORGANIZATION (NRO)	<p>The NRO funds community groups and organizations throughout Erie that are working to improve their communities. Many of the projects funded through its mini-grant program are neighborhood cleanup events.</p>

ORGANIZATION/PROGRAM	DESCRIPTION
SAVE OUR NATIVE SPECIES (SONS) OF LAKE ERIE	SONS of Lake Erie has over 2,700 members and organizes regular cleanup events in the Frontier Park and Presque Isle Bay areas of the City.

ABATEMENT: ILLEGAL DUMPING

The Department of Public Works, Property and Parks is primarily responsible for abating sites with severe illegal dumping, specifically the Bureau of Parks maintenance crews and the Bureau of Streets’ “Alley Team.” For any dumping that occurs within the right-of-way of the railroad tracks, the City has an agreement with CSX Corporation (the railroad operators) that the railroad company will take responsibility for the necessary abatement. It is estimated that one-third of all illegal dumping in Erie happens near the railroad tracks, and in commercial areas it is the alleyways that are the most common targets for dumping.

ENFORCEMENT

The City of Erie Code Enforcement team responds to complaints of littering, improper storage of trash, storage of inoperable vehicles, and general rubbish/debris by performing an inspection of the property in question. The City’s six Code Enforcement Officers spend an estimated 33% of their time addressing these issues. After identifying a violation of the Property Maintenance Code, they issue a Notice of Violation. If the problem isn’t resolved upon reinspection, they issue a Quality of Life ticket which includes a small fine. If the problem persists, the Officer will eventually file a citation against the property owner with the local Magistrate and if they are prosecuted there may be a lien placed on the property. The City just implemented the Quality of Life ticketing system in November 2018, and in the first year of the program there have been 247 tickets issued. Of these, over half (135) of them have been specific to litter or rubbish accumulation. Illegal dumping of material on private or public land is often treated as a public safety issue, and if anyone in the City identifies illegal dumping they are encouraged to notify the police. However, catching violators and obtaining the evidence necessary to charge them with a crime can be a challenge.

HARRISBURG

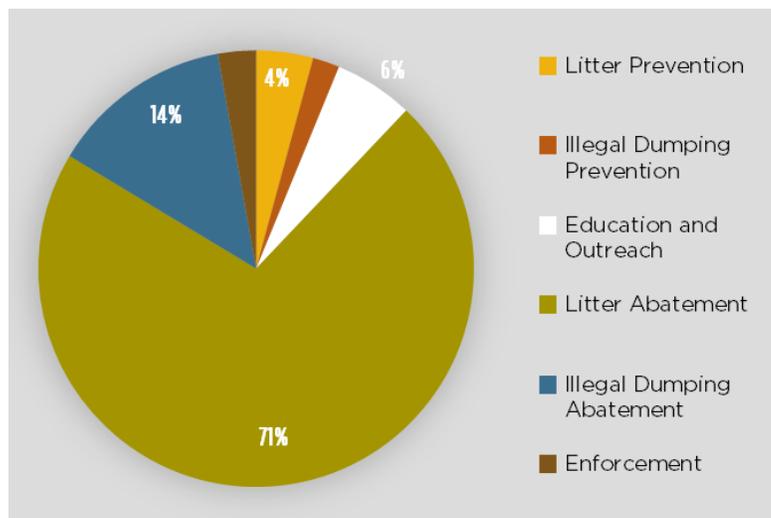
The City of Harrisburg is located in central Pennsylvania, along the east bank of the Susquehanna River, and is the Commonwealth’s Capital and 15th largest city. With a population of about 49,000 that is over 75% non-white, Harrisburg is significantly more diverse than the Commonwealth at large where the total population is less than 25% non-white.

In 2015 the City took measures to improve the existing municipal trash and recycling collection program by upgrading the sanitation fleet and restricting private haulers from operating within City limits. By consolidating all waste hauling services to municipal management, Harrisburg was able to ensure adequate levels of service across all residential and commercial generators including putting recycling services in place for all generators.

As with most other cities, the City of Harrisburg is spending far more to clean up litter and illegal dumping than to prevent it. However, the Harrisburg community is far outspending all other cities analyzed as part of this study on programs related to education and outreach, relative to its population size.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$73,400	\$34,700
Education & Outreach	\$102,200	
Abatement	\$1,242,700	\$235,500
Enforcement	\$49,000	
Total Annual Cost	\$1,737,500	



KEY TAKEAWAYS

- ▶ All waste hauling services, including universal recycling, are managed by the City of Harrisburg. All material is taken to the local energy-from-waste facility as part of a public-private partnership.
- ▶ City council adopted a new ordinance which expands the Department of Public Works’ level of enforcement against litter and illegal dumping activities.

PREVENTION

There are 80 litter cans distributed throughout commercial areas of the City for the provision of public-space waste disposal, serviced multiple times per week by the Sanitation Division as part of the municipal trash collection routes. There are an additional 260 litter cans present in Harrisburg’s public parks, serviced by the Bureau of Parks and Recreation.

In order to discourage illegal dumping, the Sanitation Division provides free pickup services of one bulky item per week for each resident as part of its curbside service offering. While glass was recently eliminated from the curbside recycling program as an acceptable recycling item, the City provides ten glass drop-off locations that are available 24 hours a day to residents.

EDUCATION AND OUTREACH

Information for residents regarding proper disposal of specific materials is disseminated by the Sanitation Division using a door hanger system. The door hangers are geographically focused, serving targeted information to the neighborhoods where it is most needed or appropriate. For example, hangers addressing glass disposal (shown to the right) direct residents to the closest glass drop off point instead of listing all ten sites. Importantly, these materials are provided in English on one side and Spanish on the other. This method of communicating directly to residents circumvents technological, logistical, and communication barriers and has proven to be an effective strategy for Harrisburg.



The Sanitation Division also reaches citizens directly through the work of its new Solid Waste Enforcement Officer (SWEO). The SWEO, in addition to his enforcement duties, provides education and outreach programs and events to Harrisburg community members. Engagements include middle school presentations, community meetings, City Council meeting attendances, and educational opportunities at local festivals.



Clean and Green Harrisburg is managed by Tri-County Community Action and serves as the Keep Harrisburg-Dauphin County Beautiful local affiliate. It is a coalition composed of businesses, residents, and local government, and has been responsible for two prominent local education campaigns: Two-minute Tuesdays and Stop the Drop.

Two-Minute Tuesdays is an outreach campaign established in 2011 targeted at local businesses and residents. The campaign encourages spending two minutes of picking up litter and sweeping in front of homes and businesses. Advocates for the campaign argue that reduced visible litter is beneficial for all residents and businesses, therefore contribution should be a group effort.

Stop the Drop was established in 2016 as an educational campaign centered around providing new lids to residents who store their refuse cans near the street. The lids are bright orange with a hole in the center, converting the residents’ personal refuse cans into a publicly accessible means of waste disposal. Clean and Green Harrisburg holds an art competition for local artists and children, and the winners receive a prize and their artwork is featured on lids throughout the City. Results from a 3-month study revealed a noticeable decrease in litter in areas where these decorated lids have been deployed. To date, Stop the Drop has provided 60 lids and the hope is to continue its expansion.



ABATEMENT: LITTER

The organizations and programs primarily responsible for driving litter abatement efforts in Harrisburg are summarized in the table below.

ORGANIZATION/PROGRAM	DESCRIPTION
CAPITAL REGION WATER (CRW)	<p>CRW implements a street sweeping program using regenerative air sweepers, which reduce more pollution as compared to traditional sweepers, to keep material from entering the City’s storm drains. Their crews must also clean over 1,000 storm drain inlets every year that become filled with litter and debris, minimizing the downstream flow of litter into the Susquehanna River.</p> <p>CRW also organizes monthly 30-minute litter cleanup events that are each focused on a particular City block in need of litter removal.</p>
DOWNTOWN IMPROVEMENT DISTRICT (DID)	<p>The DID operates a street sweeping crew that consists of between four to eight employees (depending on the time of year) using a mechanized sweeper on streets and brooms on sidewalks. The organization was also responsible for installing 55 additional litter cans throughout the district, including two solar-powered Big Bellies that include recycling. Litter prevention measures also include a program to install several cigarette disposal stations throughout the district (funded by a grant from Keep America Beautiful) and “beautification” activities (graffiti removal, power washing, etc.) that serve to increase the standard of cleanliness in Downtown and throughout Harrisburg.</p>
GREAT HARRISBURG LITTER CLEANUP	<p>Harrisburg’s own version of the Great American Cleanup, known as the Great Harrisburg Cleanup, has grown over the last seven years to attract around 400 volunteers annually. In 2018, volunteers filled twelve 30-yard dumpsters with over 23 tons of collected material. The City provides cleanup supplies and hauling resources, the local energy-from-waste facility waives all tipping fees, and various community organizations help run the event at specific locations. It is a highly collaborative event with a diverse array of stakeholders that contribute to its yearly success.</p>

TRI-COUNTY COMMUNITY ACTION: NEIGHBORHOOD REVITALIZATION PROGRAM

A featured pillar of Tri-County Community Action is neighborhood revitalization. In addition to its educational campaigns, Tri-County Community Action has established several programs to address litter in the community including:

- **Reseed & Transform:** a program dedicated to improving neglected community properties through litter and debris abatement.
- **Summer programs:** youth summer programs include a once-per-week cleanup of litter or illegal dumping in various areas of the City.
- **Block Leader:** this initiative encourages “block leaders” to coordinate small cleanups every Saturday and one large cleanup event each year.

The organization also hosts Keep Harrisburg-Dauphin Beautiful, the local Keep America Beautiful affiliate.

UNITED WAY DAY OF CARING

Harrisburg’s United Way Day of Caring event has been running 27 years and has grown to attract approximately 1,700 volunteers annually from 81 companies, working across 125 different collaborative projects. All projects contain a litter and debris abatement component, and during the 2019 event approximately 40 tons of material was collected.

WILDHEART MINISTRIES

Wildheart manages a program called “Love the Hill” that works to revitalize the Allison Hill neighborhood of Harrisburg. A large part of their work consists of cleaning up the neighborhood, from general street sweeping to targeting improvement of vacant or blighted properties. Since 2017, Wildheart has organized over 1,500 volunteers in the removal of an estimated 1.7 million pounds of litter and debris from 40 blocks of the community. The program serves as a partnership with the City, and the Department of Public Works assists by providing dumpsters and material hauling.

ENVIRONMENTAL TEEN CORPS

Environmental Teen Corps is a summer program for local youth aged 13-15 and is implemented by the Harrisburg Housing Authority. Since its inception in 2015, the program has grown from 25 to 100 participants. The program length has also expanded from four to six weeks. Environmental Teen Corps continues to provide opportunities for environmental and professional education for local youth. The primary objective of the program is to perform and encourage neighborhood cleanliness through litter and illegal dumping abatement. Youth that participated in the program collected an estimated 25 bags of trash daily over the course of the six-week program. In addition to cleanup activities, participants are compensated for work performed in order to promote and teach the value of hard work. The program also exposes participants to the consequences and social impacts of littering.



ABATEMENT: ILLEGAL DUMPING

Harrisburg's Department of Public Works is primarily responsible for addressing instances of illegal dumping, deploying a sanitation crew in response to complaints filed by residents or neighborhood organizations. The Downtown Improvement District's dedicated cleanup crew also helps manage instances of illegal dumping when it occurs downtown.

ENFORCEMENT

In August 2018, the Harrisburg City Council adopted a new ordinance under the Waste & Recycling Code ([9-309, "Prohibited Acts and Violations"](#)) that clearly defines "illegal dumping", "improper waste disposal", "excessive accumulation", and "sidewalk or street obstruction" violations and clarifies the citation process and fees associated with each violation.

An important outcome of the new ordinance is that the City now possesses additional tools and resources to address illegal dumping and excessive accumulation of waste. Illegal dumping violations may now result in fines of \$1,000 and/or imprisonment of up to 90 days. Less severe violations such as failing to properly bag garbage can result in fines of \$100 for the first offense and up to \$500 for subsequent offenses. The Harrisburg Solid Waste Enforcement Officer is responsible for enforcing the new ordinance and is tasked with canvassing the City and responding to resident complaints that help identify potential violations. It is estimated that this Officer encounters approximately 15 to 20 instances of potential litter or illegal violations each week, and an average of around 10 cases each week result in a formal citation.

While the responsibility of site cleanup is primarily the property owner's, the Solid Waste Enforcement Officer will arrange for cleanup in the event a dump site fails to be addressed in a timely manner. He collaborates closely with the Highway Division team and the Department of Public Works sanitation crew to remove dumped materials, and any time a City crew has to handle cleanup they charge the violator an additional \$345 on top of the other citation fees to cover the abatement costs incurred.

LANCASTER

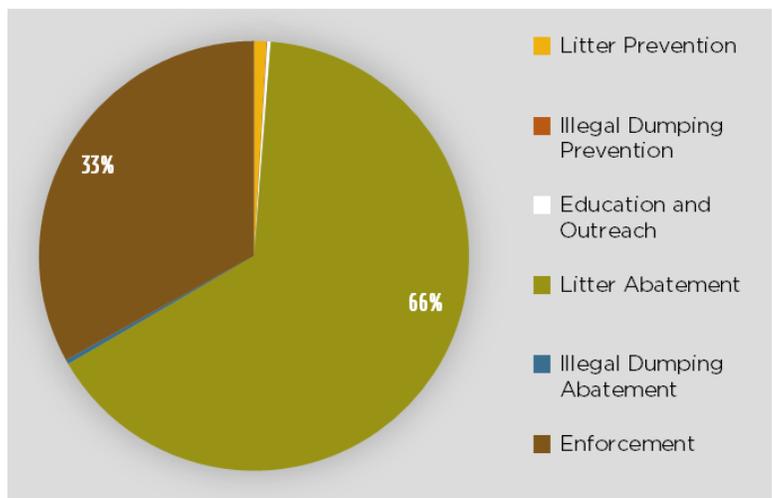
The City of Lancaster, home to approximately 59,400 people, is situated in south-central Pennsylvania between Harrisburg and Philadelphia. The Conestoga River runs through the City, which is a major tributary of the Susquehanna River so its waters eventually flow to the environmentally sensitive Chesapeake Bay.

In 2006 the City began providing all residents with weekly refuse and recycling collection services, and City representatives believe this has helped reduce illegal dumping by guaranteeing adequate and affordable curbside collection for everyone. However, some neighborhood litter may result from the fact that the City does not provide residents with refuse containers, meaning that most curbside refuse is left in bags on the street overnight.

Representatives of the City say that the number one complaint they receive from residents is related to litter. In 2016 the Mayor’s Office conducted a neighborhood survey in which neighborhood cleanliness was one of the most important issues to survey respondents.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$20,000	\$1,000
Education & Outreach	\$5,500	
Abatement	\$1,393,300	\$7,200
Enforcement	\$704,500	
Total Annual Cost	\$2,131,500	



KEY TAKEAWAYS

- ▶ Without the provision of robust curbside containers for residential garbage, many residents leave their waste in trash bags on the curb. This creates opportunities for litter to spread in residential areas, for example when animals open the bags and scatter their contents.
- ▶ While the City of Lancaster has not historically provided significant funding for educating citizens about litter and illegal dumping or other preventative measures, it demonstrates significant annual investment in litter abatement activities and enforcement through its SWEEP program.

PREVENTION

The City offers collection of one oversized item each week alongside trash and recycling as part of the curbside program, and they offer collection of white goods (appliances) on the third Friday of each month. To set out white goods, residents must first purchase a tag for \$15 from the Treasury Office and then adhere the tag to the appliance. However, the program to collect white goods is not widely promoted and only 90 of these tags are sold on average each year. The City also operates a Recycling Drop-Off Center that accepts already-separated material six days a week.

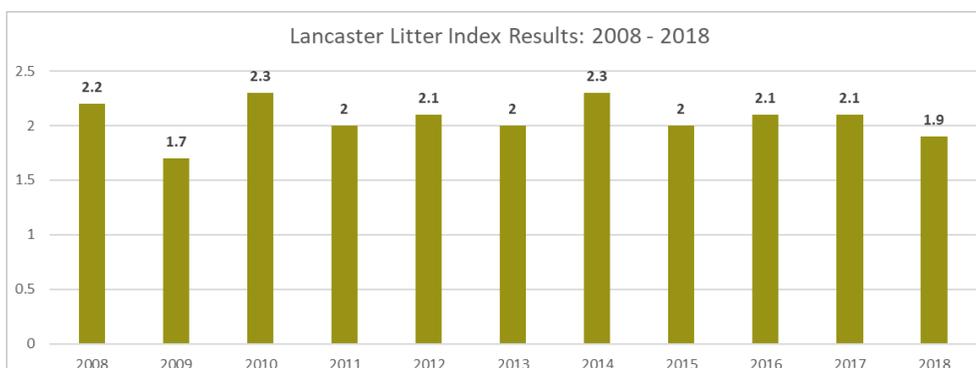
The City's Bureau of Operations has installed 130 public space litter cans as a concerted litter prevention strategy. The cans are located in target areas with higher activity and more pedestrian through-travel. The most densely populated part of the City is downtown, where supplemental cans have been installed on sidewalks by the Downtown Improvement District. In the Southwest Neighborhood, the community organization SoWe has deployed an additional 20 litter cans.

EDUCATION AND OUTREACH

The Solid Waste Education and Enforcement Program (SWEEP) is a City-run program organized by the Bureau of Solid Waste and Recycling, created to educate Lancaster citizens about their responsibilities to control litter and uphold the City's codes regarding litter. The City's two SWEEP Officers perform regular outreach and education in local schools, talking to elementary and middle school students about the importance of preventing litter in their communities.

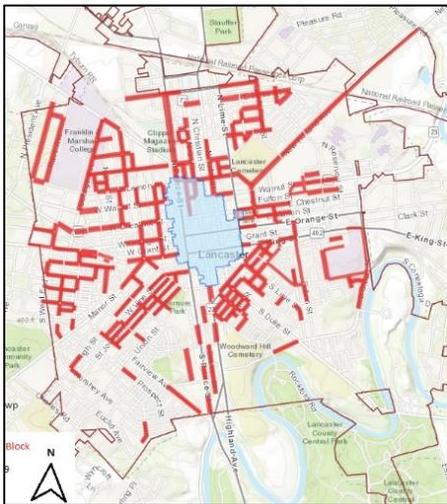
Another key partner in education and outreach is Keep Lancaster County Beautiful (KLCB), which is housed within the Lancaster County Solid Waste Authority (LCSWMA). KLCB creates educational opportunities through the attendance of community events and handing out pamphlets about litter prevention. They offer workshops for volunteers and educators, community workshops for residents, and grade-school events to educate students on the importance of litter prevention.

KLCB also implements the Community Appearance Index survey each year to update this metric of community cleanliness, in keeping with the best practices put forth by Keep America Beautiful. They have been implementing the survey since 2003, and each year the community receives an aggregate score from 1 ("no litter") to 4 ("extremely littered"). Shown below is a graph of the annual results since 2008, in which time the results seem to have stayed roughly consistent hovering around a score of 2 ("slightly littered").



ABATEMENT: LITTER

In the coming years, the City will be taking a serious interest in mitigating and preventing any harmful impacts to the local section of the Conestoga River due to a federal Consent Decree that took effect in February 2018. Stormwater overflows and its impacts on waterways are exacerbated by litter that makes its way into storm drains, elevating the importance of litter prevention for many departments and organizations across the City. Litter abatement in Lancaster is spearheaded by the City’s street cleaning program, which is federally mandated in order to keep litter out of storm drains and minimize the impacts of public littering on local and regional waterways. The street cleaning crew operates five days a week with two day shifts and one night shift. The downtown streets are cleaned the most frequently, while alleyways and the rest of the streets are cleaned twice per month. The program is supplemented by a prisoner work-release program that operates for two hours every day and addresses areas that become particularly problematic as well as gutters and sidewalks citywide. In 2018 these programs resulted in almost 900 tons of material collected from public spaces.



The Adopt-a-Block program relies on volunteers who live and work in Lancaster to regularly monitor and maintain a specific street or area in the City. While the Adopt-A-Block program concept can be found in cities across Pennsylvania, the program in Lancaster has impressive levels of adoption and participation. As of mid-September 2019, over 25 miles of roadway have been adopted by 170 separate organizations, businesses, families, or individuals. That constitutes over 22% of Lancaster’s total roadway miles. All adopters agree to conduct a minimum of four cleanups per year – these cleanup activities are closely tracked by the Bureau of Solid Waste & Recycling, which then works with Keep Pennsylvania Beautiful and Pennsylvania Department of Transportation to coordinate disposal of all collected material.

The organizations and programs primarily responsible for driving litter abatement efforts in Lancaster are summarized in the table below.

ORGANIZATION/PROGRAM	DESCRIPTION
<p>CITY OF LANCASTER OFFICE OF NEIGHBORHOOD ENGAGEMENT</p>	<p>The City of Lancaster recently awarded nine “mini-grants” to individual neighborhoods as part of Love Your Block, a program funded by Bloomberg Philanthropies and administered through the City’s Office of Neighborhood Engagement. The program has given out almost \$14,000 in grants across the nine projects, all of which have been geared toward neighborhood beautification. Seven of them</p> <div data-bbox="1031 1522 1442 1780" data-label="Image"> </div>

	<p>have specifically included measure to prevent or abate litter in the community, including installation of public litter cans, giving curbside bins to residents for trash and recycling, and organizing cleanup events.</p>
<p>CONESTOGA CLEANUP</p>	<p>Organized by the Lancaster Conservancy alongside a number of other public and private partners, the annual Conestoga Cleanup occurs over one day in June during Lancaster Water Week. The event is held over seven sites, two of which are inside the City of Lancaster, and include bands of volunteers picking up litter and illegal dumpsites. Lancaster Conservancy recruits volunteers for the event through a social media campaign and by partnering with corporate volunteer groups.</p>
<p>KEEP LANCASTER COUNTY BEAUTIFUL (KLCB)</p>	<p>KLCB supports cleanup initiatives in coordination with Lancaster County Solid Waste Management Authority. Over the last five years the organization has supported an average of 80 events and engaged over 1,500 volunteers annually. The 2019 Great American Cleanup in Lancaster resulted in the collection of over 100 tons of material!</p>
<p>LANCASTER CITY ALLIANCE (LCA)</p>	<p>The LCA implements several of the programs of the Downtown Improvement District (DID), including extensive supplemental street & sidewalk cleaning services throughout the downtown area. This “Clean Team” has three crew members that cover the entire DID area daily, using a combination of mechanical equipment and brooms to clear sidewalks, bus shelters, and areas in the public-right-of-way where debris collects. They remove over 50,000 pounds of material from sidewalks each year.</p>
<p>SoWe COLLABORATIVE</p>	<p>SoWe works to improve Lancaster’s Southwest Neighborhood, including programs to clean and beautify the community. Starting in 2018, they have implemented a “clean crew” that consists of two residents hired to pick up litter and report any instances of illegal dumping to the City. The crew removes an estimated 10,000 pounds of litter from the community every year and deposits most of it into the dumpsters of local businesses that have signed on as “partners” of the program.</p>

ABATEMENT: ILLEGAL DUMPING

When illegal dumping is identified and cited by the SWEEP team, the Bureau of Solid Waste hires a third-party hauling contractor to clean up and haul the material. Other illegal dumping is dealt with as needed by both the Bureau of Solid Waste and the Bureau of Streets based on capacity and availability. The City's Bureau of Health sponsors an annual tire cleanup to address illegal dumping of tires, funded through a State grant, which has historically been responsible for removing an entire trailer-load of tires from the community each year.

ENFORCEMENT

Despite having a strong ordinance in place to prevent litter, the Lancaster Police Department has historically been reluctant to investigate and cite citizens for violations related to litter and illegal dumping because violators are rarely caught in the act. Local Police have found that in order to prosecute, they would need eye-witness testimony which is prohibitively difficult to obtain. To circumvent this issue, in 2008 the City created a new Solid Waste Education and Enforcement Program (SWEEP) with two full-time officers that are dedicated to finding and investigating instances of littered properties and illegal dumping. The SWEEP officers' main tool is the ability to issue Property Violation Notices (PVN) to property owners wherever they encounter these issues. Some of the violations that may result in a PVN include:

- Failure to recycle.
- Improperly storing refuse.
- Improperly storing refuse containers.
- Placing refuse and recycling at the curbside too early (or leaving containers out too long).
- Allowing litter to accumulate on the property.

The Lancaster SWEEP team issues over 4,000 PVNs annually, and about 35% of them are related to litter or illegal dumping. According to City staff, in most of these cases the "violator" takes action and addresses the issue before fines and further enforcement is required.

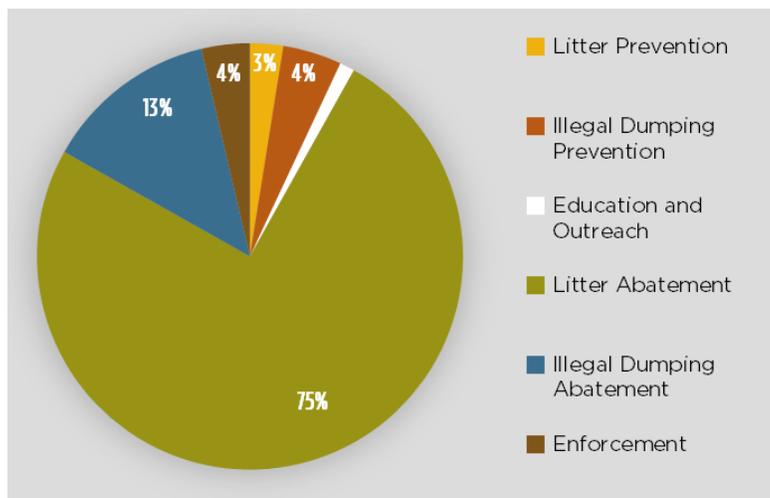
PHILADELPHIA

With an estimated population of over 1,500,000, Philadelphia is the largest city in Pennsylvania and the sixth-largest city in the United States. It is situated in the southeastern corner of the Commonwealth, where the Delaware and Schuylkill Rivers meet.

In recent years, the City of Philadelphia has demonstrated a commitment to understanding and addressing litter in its communities. In December 2016, the Mayor signed Executive Order 13-16 creating the Zero Waste and Litter Cabinet (ZWLC), an interdepartmental team dedicated to combating litter and driving the City toward its goal to achieve Zero Waste by 2035. The Cabinet is guided by an Action Plan and releases yearly progress reports to document efforts and progress. In only two years it has completed 22 of the original 31 recommendations out of the Action Plan that are related to litter and illegal dumping. In addition to direct action, the Cabinet works to support the beautification activities of individual community groups and business districts by promoting their work and providing them with information and resources to enhance their impact.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$1,217,000	\$2,163,400
Education & Outreach	\$547,300	
Abatement	\$36,314,700	\$6,376,800
Enforcement	\$1,778,300	
Total Annual Cost	\$48,397,500	



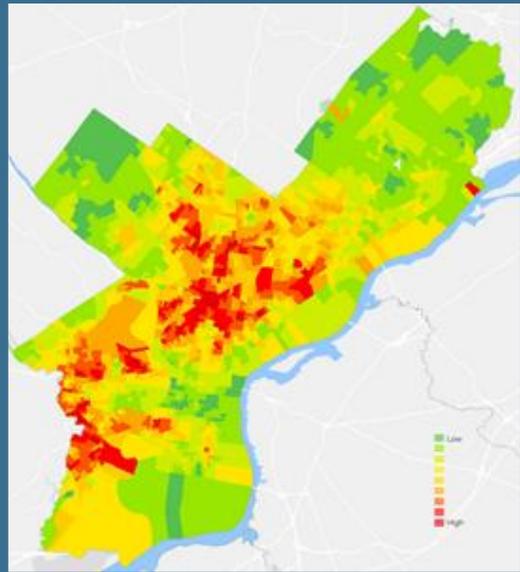
KEY TAKEAWAYS

- ▶ The City of Philadelphia shows strong leadership in fighting litter and illegal dumping by establishing the Zero Waste and Litter Cabinet, whose actions are guided by a comprehensive Action Plan and who measures the impact of its programs quantitatively using the Litter Index dataset (referenced below).
- ▶ Philadelphia's total expenditures for all activities related to litter and illegal dumping reach almost \$50 million annually and it is home to many innovative programs, however a combined 89% of this funding still goes toward abatement as opposed to more proactive preventative measures.

LITTER INDEX DATASET

A key accomplishment of Philadelphia's ZWLC was to create and implement the City's Litter Index, a rating system for measuring the amount of litter in a particular area using a scale from 1 to 4. The scale is based on Keep America Beautiful's Community Appearance Index. The 2018 study included 37 different staff members from five departments, applying the rating system block-by-block across the entire City. The data is provided to the public as a map that shows the index rating at the block and neighborhood levels, and the study will be performed every year allowing residents to track the changing amount of litter in their neighborhood over time. Thanks to its granularity, this dataset has already been used to...

- Determine placement of new public litter cans and optimize routing for their collection.
- Guide the Streets Department in their placement of surveillance cameras to prevent and enforce against illegal dumping.
- Inform the City's decision regarding which neighborhoods should be chosen for the pilot street cleaning program implemented in 2019; and, measure the effectiveness of the street cleaning on the abatement of litter in those communities.
- Analyze which neighborhoods are underreporting litter and illegal dumping, based on the areas where the Litter Index score is high but the volume of 311 reports for these actions is relatively low.
- Assist Philadelphia Parks & Recreation in determining where to update its illegal dumping signage and build enclosures for trash containment, as well as to measure the effectiveness of these procedures in preventing future illegal dumping.
- Aid the Southeastern Pennsylvania Transportation Authority (SEPTA) in monitoring the litter conditions around transit stations, to prioritize its cleaning and improvement efforts.



PREVENTION

The City of Philadelphia manages six Sanitation Convenience Centers (SCC) that are open six days a week. In addition to single-stream recyclables, these centers accept electronics, tires, and household hazardous waste at no charge to Philadelphia residents. The SCCs also accept household waste (up to twelve bags per visitor) and bulky items (limited to two per day). Interestingly, data collected by the City indicates that the SCCs that are located in the most densely populated neighborhoods are the least used. The Streets Department staff believe that access to a vehicle for transporting material from one's home to a SCC is a more important determinant of "access" than proximity to the nearest SCC.

The City also touts a robust Zero Waste Events Program, which works to ensure that public events requiring a permit have the necessary plans and resources in place to maximize waste diversion. This includes the provision of three-bin collection systems, volunteers to manage the bins and ensure attendees sort properly, and assistance with hauling all collected trash, recycling and composting. Over the course of fiscal year 2018, the City supported 21 events in their waste reduction efforts with the assistance of 320 citizen volunteers.

To prevent litter throughout the City, the Streets Department installed and maintains around 500 solar-powered Big Belly trash receptacles throughout downtown Philadelphia and another 460 across other commercial districts. The City created the Community Cans program to provide supplementary litter cans, partnering with sponsors in commercial districts (community groups, Community Development Corporations, and Business Improvement Districts) to place over 50 wire mesh litter cans in the public right-of-way. The Philadelphia Water Department has contributed to this effort by leveraging EPA Trash Free Waters grant funding to add litter cans in two residential areas, decorating the cans with art by local artists. Additional litter cans are maintained in parks throughout the City by the Parks & Recreation Department, which has also added recycling collection at every municipal recreation center.



To reduce litter in residential areas, the Streets Department is piloting a program called PhilaCan, allowing residents in densely populated neighborhoods to maintain lidded, City-issued refuse bins in front of their homes that their neighbors and other pedestrians can also use as litter cans, for depositing waste as they pass by. So far, 1,500 cans have been deployed through this program, and the City will use the Litter Index dataset to measure the program’s effectiveness over time.

The City has also recently implemented policy changes aimed at preventing illegal dumping from occurring in the first place, including the following:

- A “Tire Dealer License” requiring tire dealers to maintain records of all tires they buy, sell, or dispose of.
- All permit applicants for demolition, renovation, and new construction must now include information on which hauler they will use for construction waste. Copies of all tipping receipts and evidence of proper disposal must be retained for audit upon request for three years after the building permit is finalized.
- Increased enforcement and training around existing Code requirements for commercial food establishments that require them to provide outdoor trash and recycling receptacles near the entrance of the business.

Keep Philadelphia Beautiful works to develop and support litter prevention programs as well, including the provision of microgrants for new and innovative strategies. For example, they recently partnered with the Delaware River Waterfront Corporation to tackle cigarette litter by installing 30 new litter cans along the local waterfront.

EDUCATION AND OUTREACH

One of the first and most important accomplishments of the ZWLC was the creation of the CleanPHL.org website, which serves as a clearinghouse for all programs and resources related to litter prevention and abatement offered by the City as well as other community partners. This website houses the Litter Index, and contains a feature where users provide an address and receive information specific to that block, including its Litter Index score, trash collection day, diversion rate, nearest SCC, and any community resources embedded in that neighborhood such as Block Captains, Park Friends groups, watershed groups, and any other Registered Community Organizations. In the first year after its launch, the site saw almost 30,000 unique visits and over 17,000 of these visitors used the Litter Index Map search function to access the information listed above.



A recent initiative undertaken by the ZWLC, in partnership with the Streets Department and other City and community partners, is the development of Neighborhood Litter Control Plans. Using the Litter Index data to guide and prioritize efforts, the City is engaging residents and community-based organizations in specific neighborhoods to develop plans that identify needs and assets and determine the key interventions for preventing and abating litter and illegal dumping in those communities. There are two Neighborhood Litter Control Plans being implemented currently, with more planned for 2019 and beyond.

The Philadelphia More Beautiful Committee (PMBC) is a City program that has served to facilitate and support community cleanup events for over 70 years. The program employs about a dozen Clean Block Officers who represent specific City districts, providing the residents of those communities with City resources and information related to keeping their neighborhoods clean. The Clean Block Officers also work to establish and support a network of Block Captains – neighborhood leaders who organize cleanup events and other beautification efforts. There are currently about 6,500 Block Captains registered across the City.

Keep Philadelphia Beautiful (KPB) is a critical City partner when it comes to education and outreach. Since 2016, KPB has provided educational workshops in local schools, to teach K-12 students about the impacts of litter and the importance of recycling. In 2018 they held 47 workshops that reached 1,688 students. They also compile an annual Community Cleanup Resource Guide that provides citizens with detailed information on how to organize and execute cleanup events, what programs and resources are available to support those events, as well as case studies and best practices for all types of beautification initiatives.

The ZWLC also launched the CleanFutures program in 2018 in partnership with the School District of Philadelphia, the Office of Innovation Technology, Keep Philadelphia Beautiful, and the technology platform Litterati. Through the program, groups of students from classes and after-school clubs at Philadelphia schools use the Litterati platform to track and count litter on their school properties and use the data they collect to implement litter awareness and reduction projects. More than 300 students across all participating schools took part in the data collection process and picked up a total of about 13,000 pieces of litter in the program's pilot year, and the program has been expanded for the 2019/20 school year.

ABATEMENT: LITTER

The organizations and programs primarily responsible for driving litter abatement efforts in Philadelphia are summarized in the table below.

ORGANIZATION/PROGRAM	DESCRIPTION
CENTER CITY DISTRICT & UNIVERSITY CITY DISTRICT	<p>These Business Improvement District organizations provide services that include street sweeping programs. In 2018, University City District’s crew alone collected almost 150,000 bags of trash across 160 blocks.</p>
CITY OF PHILADELPHIA DEPARTMENT OF COMMERCE	<p>This department implements the Commercial Corridor Cleaning Program, providing funding for community cleaning programs in dense commercial areas and for community groups to manage regular litter pickup initiatives. The City uses the Litter Index to evaluate the effectiveness of this program and to determine where to target future funding.</p>
CITY OF PHILADELPHIA STREETS DEPARTMENT	<p>This Department has five separate three man crews that are dedicated full-time to monitoring and removing illegal dumping from streets and vacant lots on a daily basis. In 2018, the department collected more than 7,000 tons of waste illegally dumped throughout the City. Additionally, the Streets Department:</p> <ul style="list-style-type: none"> • Services over 1,000 Big Bellies and standard litter cans. • Manages the Philadelphia More Beautiful Committee, which has 12 Clean Block Officers who work with over 6,500 Block Captains for neighborhood beautification. • Manages 6 Sanitation Convenience Centers where residents can bring excess trash and recycling as well as specialty recyclable materials such as tires, appliances, electronic waste and yard waste. • Manages a pilot City-wide Street Sweeping Pilot that will grow into a full City-wide program by 2023. • Leads the Philly Spring Cleanup each year by organizing volunteer groups across the City and providing them with complementary supplies and hauling of all collected materials. The 11th annual event in 2018 engaged almost 1,800 volunteers over 767 projects sites, collecting over 320 tons of trash and removing over 8,000 tires.
COMMUNITY LIFE IMPROVEMENT PROGRAM (CLIP)	<p>CLIP manages the Community Partnership Program (CPP), which supports community volunteers engaged in cleaning and maintaining their neighborhoods by providing necessary supplies, loaning tools, and hauling collected material from volunteer-organized cleanup events.</p>

ORGANIZATION/PROGRAM	DESCRIPTION
	<p>CLIP’s Community Service Program (CSP) provides non-violent offenders an opportunity to complete their community service sentences by cleaning and beautifying the City. Projects include sweeping and removing debris from neighborhoods and City-owned properties, as well as assisting community groups with organized cleanups.</p>
<p>KEEP PHILADELPHIA BEAUTIFUL (KPB)</p>	<p>KPB, in partnership with other community organizations, coordinates cleanup events for volunteers throughout the year. In 2018, they engaged 474 volunteers over five events that removed six tons of material from Philadelphia streets and waterways.</p>
<p>PHILLY SPRING CLEANUP</p>	<p>The City leads Philly Spring Cleanup each year by organizing volunteer groups across the City and providing them with complementary supplies and hauling of all collected material. The 11th annual event in 2018 engaged almost 1,800 volunteers over 767 project sites, collecting over 320 tons of trash and removing over 8,000 tires.</p>
<p>PHILADELPHIA WATER DEPARTMENT (PWD)</p>	<p>PWD’s Marine Debris and Floatables Control Program includes:</p> <ul style="list-style-type: none"> - Removing floatable marine debris using three skimming vessels and two manned work boats. In 2017, this program removed a combined 12.3 tons of debris and 152 tires. - Streambank restoration efforts including 740 stream site cleanups, removing 1,622 tons of trash from the watershed in 2017. - An inlet cleaning program that removed 7,211 tons of debris from over 100,000 inlets in 2017. - Maintenance of debris screens that trap debris from entering waterways, removing 1,139 tons of material from them in 2017. <p>PWD also works with partners to organize and host volunteer cleanup events near Philadelphia-area waterways. It also participates in educating residents living near these waterways on the impacts of litter reaching rivers that supply the City’s drinking water.</p>
<p>SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY (SEPTA)</p>	<p>SEPTA spends over \$8M annually on cleaning of stations, right-of-way and tunnels, and areas along the bus loop, in part to address constant littering and dumping that occurs on these properties.²</p>

² Sentence updated as of February 6, 2020 to correct a typographical error.

ORGANIZATION/PROGRAM	DESCRIPTION
UNITED BY BLUE (UBB)	UBB is a retail outfitter whose company mission is to remove one pound of trash from waterways for every product sold. In 2017, UBB cleanup events engaged 1,347 volunteers to collect over 20 tons of material from Philadelphia-area waterways.
ZERO WASTE LITTER COUNCIL (ZWLC) ILLEGAL SIGN ABATEMENT PROGRAM	The ZWLC has tackled the issue of illegal signage citywide by engaging the community to remove them and prevent their placement going forward. They hosted Illegal Signs Roundup events in 2018 and 2019, in which community groups removed an average of 7,700 illegal signs from the public right-of-way each year. Participating groups were rewarded 50 cents for every sign they collected during the event, up to \$250.

ABATEMENT: ILLEGAL DUMPING

The Streets Department has five separate three-man crews that are dedicated to monitoring and removing illegal dumping from streets and vacant lots on a daily basis. The total tonnage this department has collected each year is evidence of the effectiveness of the City’s entire suite of programming in combating and preventing illegal dumping activity: tonnage has dropped each year, going from 11,525 tons in 2016 to 7,061 tons in 2018.

CLIP crews are also responsible for removing illegally dumped material as they work to revitalize Philadelphia’s most blighted communities. In 2016, CLIP abated 1,600 tons of illegally dumped material from 128 lots.

Removing dumped tires from the community has been an important focus for the City in recent years. The Streets Department spent approximately \$125,000 in 2016 on the removal and disposal of about 130,000 illegally dumped tires across the Philadelphia area. PMBC manages the Tire Round-Up Program, which reimburses volunteers 50 cents for every tire they clean up from the community and drop off at the SCCs.

ENFORCEMENT

In 2018, the third most common type of incident reported through Philadelphia’s 311 system was “Illegal Dumping” (24,682 reports). A portion of these reports are generated during the Litter Index survey, as the data collection teams indicate when they identify particularly problematic dump sites, generating automatic 311 requests. The two most common incidents reported through 311 in 2018 were “Maintenance Residential or Commercial” (28,634 reports), of which a significant portion are related to litter and illegal dumping, and “Rubbish/Recyclable Material Collection” (25,857 reports).

To assist with enforcement, the City is also interested in leveraging camera surveillance technology to catch and prosecute illegal dumping violators. There are currently 39 cameras in operation at locations that are notorious

for dumping activity, and the Streets Department intends to continue to install additional cameras and develop new methods and procedures for monitoring their footage to build successful cases against violators.

To address litter and illegal dumping issues, the Streets Department deploys a Streets and Walkways Education and Enforcement Program (SWEEP) team of over 50 SWEEP Officers who serve to educate the community on the Sanitation Code and enforce the Code by issuing warnings and citations. Of the approximately 50,000 Code violations issued by the 36 SWEEP Officers in 2018, over 23% of them were labeled as “Premises not litter free” and 20% were labeled “Sidewalk not litter free”.

Another enforcement mechanism for the City is through CLIP’s Property Maintenance and Vacant Lot programs. CLIP staff issued 21,754 violation notices in 2018 to property owners with properties considered a nuisance due to debris and overgrowth. In 5,293 of these cases, they had to implement abatement procedures on the properties because property owners failed to respond to the notice or never addressed the issue. Following abatement, CLIP then bills the property owner for the full cost of staff time, equipment, and supply usage as well as an additional “abatement fine.”

In addition to the SWEEP and CLIP teams, the Department of Licenses and Inspections (L&I) also has the ability to cite property owners for Code violations. Out of over 90,000 notices of violation issued by L&I in 2018, approximately 18,000 (19%) of them were related to the presence of litter, debris, or illegally dumped material. The main method of penalizing violators is to charge a “re-inspection fee” every time they come back to check if the issue has been resolved. Re-inspection fees start at \$100 but increase to \$350 per inspection on the fourth and subsequent visits to the site.

One of the five subcommittees of the ZWLC is called Litter Enforcement and Cleaner Public Spaces. This group works to reform and improve the existing systems for enforcing against littering and illegal dumping. In 2017, the group came up with 31 recommendations to enhance the City’s enforcement policies and procedures. These recommendations included raising fines for illegal dumping violations from \$300 to \$1,000 (plus \$500 increase for each subsequent violation by the same offender), implementing seizure and/or forfeiture of vehicles involved in dumping crimes, and streamlining illegal dumping cases to increase the number of cases being prosecuted. The greater prioritization of illegal dumping cases resulted in a jump from a 33% prosecution rate in 2016 to a 90% prosecution rate in 2017.

The ZWLC also recommended that the Philadelphia Police Department (PPD) form an Environmental Crimes Unit. In August 2018, PPD hired an Environmental Crimes Detective who works to gather the evidence necessary to pursue the arrest and prosecution of alleged illegal dumping violators. The ZWLC also worked with PPD and the DA's Office to streamline illegal dumping cases within the court system, making sure that all necessary entities are aware of these cases, that they are coded and submitted for prosecution correctly, and then successfully prosecuted. Between January and September 2019, 351 total illegal dumping cases were tracked, eight defendants were ordered to perform 125 community service hours with CLIP, 135 illegal dumping tickets were issued by CLIP, and four defendants were ordered to pay a total of \$2,538.28 in restitution payments.

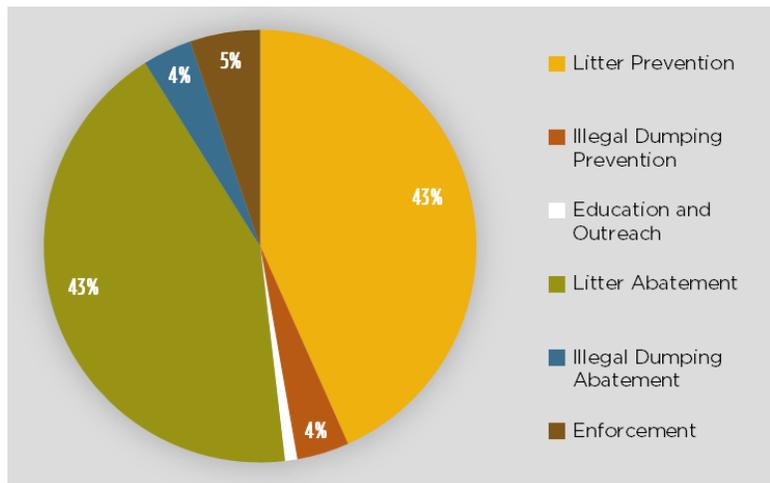
PITTSBURGH

With over 300,000 residents, Pittsburgh is the second largest city in Pennsylvania and the 66th most populated city in the United States. It is located in the southwestern portion of the Commonwealth in Allegheny County, at the nexus of the Allegheny, Monongahela, and Ohio Rivers. Ravines that characterize Pittsburgh’s topography serve as targets for illegal dumping, and recent record amounts of rainfall have increased the presence of litter along local waterways.

The City convenes a group called the Clean Pittsburgh Commission (CPC) that meets monthly and is comprised of representatives from various City departments as well as the local non-profits and community groups that work to prevent and abate litter and illegal dumping. The group acts as a clearinghouse for the key City-wide stakeholders to coordinate solutions and new programs, and they connect with individual neighborhoods by appointing Clean Neighborhood Stewards to promote cleanups and beautification initiatives within their communities. The CPC is working to obtain direct funding from the City for the first time, to strengthen its various initiatives.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$2,734,400	\$246,800
Education & Outreach	\$57,700	
Abatement	\$2,706,900	\$232,400
Enforcement	\$331,300	
Total Annual Cost	\$6,309,500	



KEY TAKEAWAYS

- ▶ Litter and illegal dumping are chronic problems of significant concern to Pittsburgh residents, as shown in the City’s 311 reporting statistics (see table in the “Enforcement” section). Efforts by the City of Pittsburgh to keep the community clean are supplemented by key local non-profits such as Allegheny Cleanways and other volunteer groups.
- ▶ The Clean Pittsburgh Commission represents a strong, collaborative approach to addressing litter and illegal dumping that will be instrumental in garnering more resources for these issues and ensuring that existing resource are allocated to achieve the most impact.

PREVENTION

The City of Pittsburgh’s Bureau of Environmental Services (BES) is housed within the Department of Public Works and includes the Refuse and Recycling Divisions. The Refuse Division is responsible for standard and bulk garbage collection from residential and governmental properties. Residents are allowed to set out up to two bulky items for pickup each week at no additional cost. Providing this convenient option for residents serves as a preventative measure against illegal dumping.

The City also offers comprehensive recycling programs, including every-other-week residential curbside recycling collection to all residents. This service is supplemented by three drop-off locations that accept common recyclable materials as well as yard debris and tires. There are also three other drop-off locations that accept glass only. To handle electronics and household hazardous waste, in 2018 the City partnered with a local vendor to offer scheduled drop-offs, scheduled pickups, and periodic drop-off events. While there are user fees associated with these disposal options, which could motivate some residents to continue dumping these items illegally, the new program does provide a level of convenience that may increase rates of proper disposal overall.

2018 CITY OF PITTSBURGH RECYCLING PROGRAM HIGHLIGHTS

Materials Collected	Tons of Debris
Residential Single-Stream Recycling	15,702
Yard Debris	2,159
Christmas Trees	17
Scrap Metal	63
Electronics	33
Total Tons	17,974

ROLLING OUT RECYCLING CARTS

City residents may place recyclables in a blue recycling bag, blue bin, or blue cart with a tight fitting lid. To improve the quality of recyclables and reduce litter in the City, the City encourages residents to purchase blue bins or a cart with a tight fitting lid. The City is working to roll out recycling carts City-wide. In 2018, the City distributed new 32-gallon recycling containers to 1,500 households. The Pennsylvania Resources Council (PRC), with the support of the Alcoa Foundation, distributed an additional 4,000 recycling bins to Pittsburgh households in 2018.



GETTING SMART ON PUBLIC LITTER

There are about 2,000 litter cans across Pittsburgh to help handle the waste generated in public spaces and prevent littering. In 2018, the City worked to replace almost 1,300 of them with Victor Stanley Relay™ cans that are GPS-enabled and provide DPW with real-time data on their fullness levels. The technology enables more efficient routing, generating massive savings in labor (going from 25 down to nine collection staff) as well as vehicle and fuel savings. DPW expects to accrue more than one million dollars in annual savings from deploying this new bin technology.



EDUCATION AND OUTREACH

Pittsburgh offers extensive recycling-related resources for citizens. The Department of Public Works’ website contains educational resources related to Zero Waste practices including comprehensive, material-specific recycling information. A unique [Materials Recovery Map](#) helps residents locate the facilities available City-wide for recycling each material. The City’s Anti-Litter Specialist is dedicated to supporting litter abatement efforts and performing outreach to educate the community on the prevention of litter and illegal dumping. He develops communications materials, visits schools to present to children, and meets with neighborhood organizations in an effort to change citizens’ mentalities when it comes to the causes and impacts of litter.

Pittsburgh citizens also benefit from the presence of two non-profits that are resources for additional educational opportunities: Allegheny CleanWays and the Pennsylvania Resources Council (PRC). Allegheny CleanWays, a Keep America Beautiful affiliate, implements a number of initiatives aimed at litter and illegal dumpsite prevention including booths at local events and remaining active on social media. They offer educational programming in schools that is specific to the impacts that human actions have on watersheds, and they provide similar content through speaking engagements to organizations throughout the City. The PRC has a rich history of litter education, dating back to 1952 when they invented the now-famous mascot of the “Litterbug”. Their recent campaign, called “Don’t Trash My Turf”, includes marketing tools to spread anti-littering messages. Their Lens on Litter Photo Contest showcases the impacts of litter on the environment.

ABATEMENT: LITTER

The organizations and programs primarily responsible for driving litter abatement efforts in Pittsburgh are summarized in the table below.

ORGANIZATION/PROGRAM	DESCRIPTION
CITY OF PITTSBURGH DEPARTMENT OF PUBLIC WORKS (DPW)	DPW manages the street sweeping program, which services different areas of the City at different frequencies based on how densely developed they are. Some residential areas are swept twice per month, whereas heavily commercial districts may be swept twice each week. DPW also supports individual cleanup efforts carried out by community groups across the City. In 2018, DPW supported 398 registered cleanup projects that included participation from 10,784 volunteers.
FRIENDS OF THE RIVERFRONT	This organization leads several volunteer cleanups throughout the year to keep the recreational trails along Pittsburgh’s riverfront litter-free.

ORGANIZATION/PROGRAM	DESCRIPTION
GARBAGE OLYMPICS	<p>Each September, since the inaugural event in 2017, Pittsburgh neighborhoods compete in the City’s annual Garbage Olympics. Awards are given for most trash collected, dirtiest volunteer, and weirdest object found.</p>  <p>In 2019, over 550 volunteers cleaned up more than 970 bags of garbage, 130 tires, 95 TVs, and 35 bulky items. The competition is organized by the Clean Pittsburgh Commission with robust support from the Department of Public Works and community groups. 34 of the City’s 90 neighborhoods participated in 2019.</p>
GROUNDED	<p>A non-profit that mobilizes residents, policy-makers, and like-minded organizations to reclaim and transform vacant and underutilized spaces in distressed and transitional communities. Their work with new sites begins with the clearing and removal of all litter and illegally dumped material.</p>
LAWRENCEVILLE UNITED	<p>This neighborhood group in the Lawrenceville community coordinates monthly cleanups, providing supplies and food for volunteers.</p>
PITTSBURGH DOWNTOWN PARTNERSHIP (PDP)	<p>One of PDP’s key programs is the Clean Team, which patrol the downtown streets every day of the week to ensure that it is an inviting destination for commercial activity. Their duties include picking up litter, emptying litter cans and cigarette disposal stations, removing graffiti, and power-washing sidewalks and alleyways. In 2018 they removed an estimated 880,000 pounds of litter and trash from downtown.</p>
PITTSBURGH PARK CONSERVANCY (PPC)	<p>PPC supports projects that improve the City’s parks, including efforts to keep them cleaner and prevent illegal dumping activity.</p>
PITTSERVES	<p>PittServes, an organization within the University of Pittsburgh, organizes service opportunities for students, staff, faculty, and alumni. Two large events organized every year are Be A Good Neighbor Day and Pitt Make A Difference Day, which engage over 4,000 volunteers each year. Many of the projects included in each event involve community cleanup components from small litter pickups to major dumpsite removal.</p>
PORT AUTHORITY OF ALLEGHENY COUNTY	<p>Port Authority, the local transit authority, spends around \$1.5M annually keeping rail stations and bus stops clean of litter.</p>

ABATEMENT: ILLEGAL DUMPING

The City's Environmental Enforcement Officer works out of the Bureau of Environmental Services and is solely responsible for responding to reports of illegal dumping. In 2018, there were 890 reports of illegal dumping submitted through the City's 311 system: 691 were categorized as "Illegal Dumping" and 199 were categorized as "Dumping, private Property". The City also deploys a flat-bed truck and two crew members two days per week to collect large illegally-dumped items that have been reported through 311.

ALLEGHENY CLEANWAYS

Since 2000, the non-profit Allegheny CleanWays (ACW) has mobilized volunteers for cleanup events that remove illegal dumping and debris from vacant lots, greenways, streets, and riverbanks. This work is funded entirely through donations from foundations, corporations, and individuals. They do not receive funding or reimbursement from the City for this work and have never received a City contract for the provision of these services.

In 2018 alone, ACW worked with 369 volunteers to remove over 400,000 pounds of material and over 3,000 tires across Pittsburgh. They also partner with community organizations across the City, helping them organize events of their own and leading Cleanup Coordinator workshops.

In 2019, ACW is performing a characterization study to better understand the composition of public litter in Pittsburgh. In the past they have performed extensive studies to map illegal dumping patterns across the City, all with the aim of proactively preventing these behaviors from happening in the first place.



ENFORCEMENT

While on their daily collection routes, the City's refuse collection teams are also responsible for identifying potential violations related to litter and illegal dumping. They report these issues back to the Bureau of Environmental Services, and one of the department's thirteen foremen respond by visiting the site. The first step in their response is always to knock on doors or otherwise contact the property owner to encourage them to rectify the situation, and most potential violations are resolved in this way without going through formal enforcement proceedings. However, if the problem is not resolved the foremen do have the authority to write

citations related to litter or waste accumulation per City Ordinances §601.11 (“Littering and Dumping”) and §619.06 (“Accumulation of Municipal Waste and Recyclables”).

The Department of Permits, Licenses, and Inspections (PLI) Code Enforcement team patrols the City to identify and enforce violations to the City’s Property Maintenance Code. Most inspections start with requests that are called, texted, tweeted or electronically submitted to the 311 Response Center. The table to the right details the volume of relevant complaints received by Pittsburgh’s 311 system in 2018. The requests are anonymous, and each request prompts an inspection within five days. If the inspector identifies a violation, a notice is issued to the property owner. A second notice is issued after 15 days if the violation remains unresolved. If the issue persists upon the third inspection, the inspector can then file the case with the local magistrate or send a Clean and Lien document straight to DPW.

In 2018, there were 2,416 total violations issued that included the code “307.1 Accumulation of rubbish or garbage.” Of these, 1,647 were logged as “Abated” and the remaining 769 were logged as “Violations Found.” Ultimately, 90 of these cases resulted in a Clean and Lien request to DPW. When a Clean and Lien is placed on a property, the City reserves the right to enter onto the property, take the necessary steps to remove overgrowth or debris, and place a lien on the property for the dollar value incurred during the cleanup process.

Outside of Code Enforcement, the Department of Public Safety are the only City staff with the ability to enforce against these violations. They can issue citations when they encounter violations of Pittsburgh’s anti-litter ordinance, or the State ordinance that prohibits “scattering rubbish.” Likely due to the challenges associated with catching violators in the act, Pittsburgh Public Safety only issued 28 citations of this kind in 2018.

311 REPORTS IN 2018 INVOLVING LITTER OR ILLEGAL DUMPING

Complaint Category	# of Complaints
Litter	2,088
Refuse Violation	1,959
Street Cleaning/Sweeping	765
Illegal Dumping	691
Dumping, Private Property	199
Total Relevant Complaints	5,702

READING

THE PRETZEL CITY

The City of Reading, located in Berks County, is bounded on the west by the Schuylkill River and on the east by Mt. Penn. Home to approximately 88,400 residents, it is the Commonwealth’s fifth largest City. In 2017 an estimated 64.7% of residents were Hispanic (almost ten times the statewide estimate of 7.3%) and the median household income was \$28,755 (less than half of the statewide estimate of \$59,195).

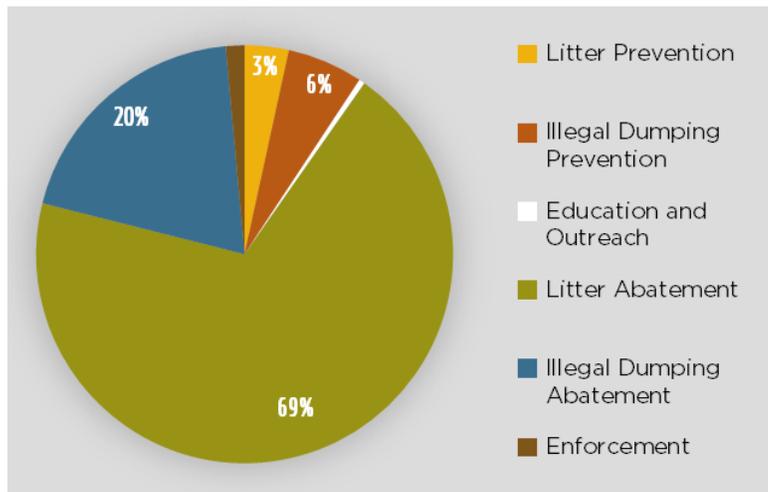
The City provides refuse and recycling collection service for all residential properties with four units or less, but households can choose to opt out of these municipal services and hire their own private hauler (of which there are 15 in operation across the City). This means that funding for graffiti removal and illegal dumping remediation, which are built into the solid waste fee, and are only paid by those who opt-in to City services.

Municipal hauling services are managed by the Sustainability & Solid Waste Division (SSWD). This division promotes waste reduction and recycling citywide and is responsible for the City’s programs that serve to address litter and illegal dumping.

The division’s Clean City crew is a team of 12 that collects trash and recycling from City facilities, collects electronics and tires for recycling, deploys and monitors illegal dumping cameras, routinely cleans up illegal dump sites, and more. They organize and host many litter cleanups, but rely heavily on volunteer labor for these events to be impactful.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$70,500	\$126,500
Education & Outreach	\$9,400	
Abatement	\$1,437,200	\$404,600
Enforcement	\$29,700	
Total Annual Cost	\$2,077,900	



KEY TAKEAWAYS

- ▶ A combined 89% of expenditures in Reading related to litter and illegal dumping are allocated to abatement, as opposed to more proactive measures aimed at prevention.
- ▶ 55% of Reading citizens speak a language other than English - of that population, 96% speak Spanish. As a result, the City must develop bilingual communications to successfully educate the entire populace regarding litter and illegal dumping prevention.

PREVENTION

The City provides public-space litter cans; however, in the case of Reading, the City has found that these cans can sometimes serve as more of a nuisance from trash overflowing causing litter instead of preventing it. They are removing certain cans (e.g. some from a now-defunct non-profit program called “CAN-IT”) that have become attractants for household trash. It is possible that the primary sources for this type of dumping are residents who have opted out of municipal hauling services and do not have adequate refuse and recycling service, or possibly any service whatsoever, provided through a private hauler. According to City officials, it is also common to see drivers empty their car of trash into these public containers.

In an effort to prevent illegal dumping, Public Works provides a robust offering when it comes to curbside collection. City trash collection includes one bulky item (such as furniture) per week from each household. Additionally, the Clean City crew collects and recycles household electronics and tires by request at no additional cost. These three programs provide residents with convenient means of disposal, representing a combined annual cost of around \$125,000 for the City. While private haulers are required to offer these services as well, this requirement is not enforced and City officials say it is likely that residents who opt out of municipal services have uneven access to hauling options for these problematic materials. To help compensate for this lack of access, the City provides a “Spring Cleaning” event in conjunction with the Great American Cleanup each year where they place a dozen dumpsters across the City for residents to dispose of household junk for free.

EDUCATION AND OUTREACH

The SSWD of the Department of Public Works serves as the clearinghouse for anti-litter education in Reading, including extensive efforts to communicate to residents regarding proper recycling of recyclable materials. A part-time Education Coordinator spends a portion of her time educating the community on waste reduction and litter prevention, including a program that has provided waste reduction education to local fourth graders since 2007. During the 2018/19 school year this program reached about 1,200 students, and the Division intends to continue to expand the program audience to include middle- and high-school students as funding allows. The same team also conducts education sessions in local public library branches and with other community partners, which include information on how and why to prevent illegal dumping in the community. For most of SSWD’s educational materials, they also create a Spanish-language version in an effort to reach Reading’s Hispanic population with their message.

Outside of the Department of Public Works, neighborhood organizations help address the need for education and outreach to promote the message of a cleaner Reading community. One such organization is called the South of Penn Task Force (SOP). In 2017, SOP partnered with other groups to survey residents of the South Penn neighborhood regarding community needs. The results revealed that pervasive litter and trash in the community was the single most important issue to survey respondents. As a result, they have led an anti-litter campaign on social media including hashtags – such as #LoveYourNeighborhood, #DontMessWithReading, and #CleanupRevolution – to promote community cleanup events and keeping the neighborhood clean.



ABATEMENT: LITTER

Organizations throughout the Reading community coordinate the removal of litter through a variety of programs and cleanup efforts, as listed below.

ORGANIZATION	DESCRIPTION
<p>CENTER FOR ACADEMIC COMMUNITY ENGAGEMENT</p>	<p>This organization, housed at Penn State Berks, leads service-learning programs that include litter clean-ups throughout the community. They have adopted a portion of the Schuylkill River Trail in partnership with the Olivet Boys & Girls Club, where they perform three cleanup events on the river every year. From 2016-2018, these cleanup events engaged 180 volunteers on average each year.</p>
<p>CITY OF READING DEPARTMENT OF PUBLIC WORKS</p>	<p>The Public Works Department includes several divisions that are responsible for keeping alleys and storm drains clear of litter throughout the City. The street sweeper program includes four full-time staff year-round that use mechanical sweeper machines, and the Reading Parking Authority provides officers to ride along with the sweepers and issue tickets to cars that are blocking the routes.</p> <p>The Sustainability & Solid Waste Division coordinates regular cleanup events that engage over 5,000 volunteer hours annually. The biggest cleanup event of the year, the Great American Cleanup in April, alone attracted 973 volunteers in 2019.</p>
<p>DOWNTOWN IMPROVEMENT DISTRICT</p>	<p>The Downtown Improvement District provides numerous cleanup and beautification projects for the downtown core, including litter removal, emptying public litter cans, using sidewalk/curb sweeper machines, and providing trash and recycling collection for downtown events.</p>
<p>READING BEAUTIFICATION INC.</p>	<p>A non-profit and Keep America Beautiful affiliate, RBI assists the City in facilitating volunteers and providing supplies for regular cleanups and the annual Great American Cleanup. In September 2017, they received a \$15,000 grant from Santander Bank to install 30 new public-space litter cans.</p>
<p>SOUTH OF PENN TASK FORCE (SOP)</p>	<p>In partnership with other neighborhood groups such as Barrio Alegria, SOP has increased its commitment to a cleaner community over time and is now hosting seasonal cleanup events every month that include food, DJ, and prizes for participating. As the programs continue to expand, the hope is to serve as a model for carrying out these efforts in other communities throughout the City.</p>

Beyond those mentioned in the table above, the Reading community is characterized by a diverse array of localized neighborhood groups, religious organizations, and even individuals or families who take initiative in leading cleanup efforts in their section of the City. Pictured below: more than 200 students and volunteers from Fairview Christian School assemble once each year for a Trash-A-Thon event. The 2018 event resulted in collection of an estimated 500 bags of litter and 25 bulky items.



READING HOUSING AUTHORITY

The Reading Housing Authority (RHA) provides an interesting case study of the total costs associated with managing litter and illegal dumping within its communities that comprise just 1,860 housing units in total (four family developments and five high-rise developments located across the City). RHA spends...

- About \$70,000 annually for street sweeping (over \$20 per unit) and \$40,000 for the maintenance team to keep the properties litter-free (almost \$40 per unit).
- Over \$8,000 annually for maintaining the camera system used to monitor areas where illegal dumping might occur.

ABATEMENT: ILLEGAL DUMPING

City officials expressed that Reading's biggest dumping violators are local and regional construction contractors; the materials the City typically discovers include toilets, tile, and concrete. Large piles of tires are also discovered from time-to-time, suggesting that some of the repair shops in the area are dumping their used tires. Areas they target tend to be in railroad rights-of-way, alleyways, abandoned properties, and heavily-vegetated areas on the fringes of the City. The Schuylkill River and the natural areas around Mt. Penn attract illegal dumping on trails, around trailheads, and in other dark and unpopulated areas. The Clean City crew is primarily responsible for responding when dump sites are identified, and their efforts represent over \$250,000 in costs to abate these sites annually. When the Property Maintenance Department needs to abate illegal dumping violations they often hire outside contractors to perform the cleanup, costing the department over \$25,000 annually.

ENFORCEMENT

Private property that receives a lot of dumping can be problematic for the City because they cannot legally monitor, prevent, or abate illegal dumping on private property. For help monitoring public grounds, the City received a set of CCTV security cameras through a partnership with Keep Pennsylvania Beautiful and has deployed them in specific areas identified as targets of repeated illegal dumping. So far, the cameras have successfully led to the prosecution of one illegal dumper who pled guilty and received a fine of \$300.

Maintaining the camera equipment, monitoring the photos, and successfully using the photos to catch the offenders and bring them to justice has so far been a challenge for a Public Works Department due to limited resources and technology limitations. They are hopeful that in time they can improve coordination with the Police Department and expand the use of surveillance to properly enforce against dumping.

The Reading Police Department does not currently enforce litter, and only responds to reports of illegal dumping when direct evidence is provided from the Public Works Department. Code Enforcement agents have found that evidence of illegal dumping, including items such as mail that includes individuals' names, does not stand as evidence in court, and therefore they do not attempt to identify the perpetrators to bring criminal charges against them. The main mechanism for enforcement of these activities lies in the ability for Code Enforcement staff to issue "Quality of Life" (QOL) tickets. The City used to have Code Enforcement staff dedicated specifically to identifying rubbish and litter violations, but that program was eliminated and now that responsibility is carried out by Reading's housing inspectors who investigate these issues as part of their broader property inspection process. In 2018 there were 2,067 total QOL tickets issued that included violations for rubbish and litter accumulation. If enough time passes and the property is repeatedly cited for the same offense, the City may choose to perform the necessary abatement and place a lien on the property if the property owner does not reimburse the City for the cost of abatement.

SCRANTON

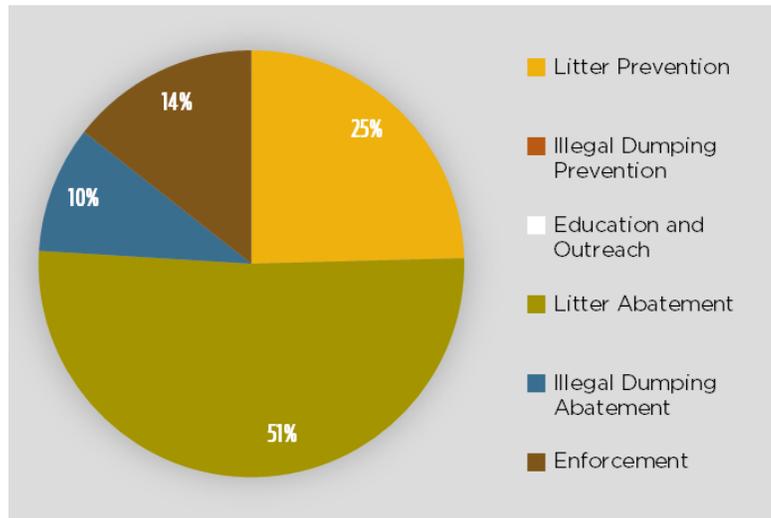
Scranton is located in northeast Pennsylvania and is the commonwealth’s sixth-largest city with a population of approximately 77,000. The Lackawanna River passes through the middle of the City.

According to City officials, litter and illegal dumping are significant issues in Scranton. Increased amounts of litter are noted in downtown areas, primarily due to heavy foot traffic, City events, and businesses that contribute to street and sidewalk litter. Officials also noted that litter and illegal dumping along the Lackawanna Heritage Trail area is tied to the homeless population congregating alongside the river. Smaller pocket parks in urban areas of the City are common targets for illegal dumping by construction contractors.

The City of Scranton Department of Public Works (DPW) organizes recycling and waste management efforts for the City, providing residents with a comprehensive curbside recycling program and free recycling containers. However, the Lackawanna County Recycling Center, has recently begun rejecting loads that arrive with obvious contamination. This will require operational changes by DPW that could result in refuse bins being left full at the curb and have the potential to cause an increase in litter and illegal dumping in Scranton neighborhoods.

COST SUMMARY

ACTIVITY	LITTER	ILLEGAL DUMPING
Prevention	\$66,400	\$ -
Education & Outreach	\$ -	
Abatement	\$138,800	\$26,000
Enforcement	\$38,900	
Total Annual Cost	\$270,100	



KEY TAKEAWAYS

- ▶ The City of Scranton commits relatively few resources to combating litter and illegal dumping compared to the other communities analyzed as part of this study. Local non-profits and volunteer groups are critical to helping keep the community clean.

PREVENTION

Government resources and programs for litter prevention are limited in Scranton. There are 36 public-space litter cans placed throughout the City that are serviced by Public Works. In addition to City curbside recycling pick-up, residents do have access to the Lackawanna County Recycling Center located in north Scranton which serves residents from Scranton as well as the rest of Lackawanna County. The facility accepts tires and electronics for a fee, in addition to conventional recyclables. Lackawanna County also hosts tire collection events that invite residents to drop off tires for proper disposal, but there is no data available as to how many of these tires are collected from City of Scranton residents.

Scranton Tomorrow is an organization that works to improve economic development in the downtown district of the City. They have found that beautification of the streetscape and storefronts acts as a strong preventative measure for littering. Scranton Tomorrow has responsibility for the City-owned planters that line the streets downtown and had become a major attractant for pedestrian litter. They have found that by keeping the planters clean and freshly-planted, people are much less likely to litter in or near them. To accomplish this they started a successful Adopt-a-Planter program whereby the businesses downtown take responsibility for maintaining specific planters.

EDUCATION AND OUTREACH

The City of Scranton’s Recycling Office provides technical assistance on establishing recycling programs, waste reduction techniques, and municipal reports and grants. The Recycling Office also provides presentations to community groups on proper recycling at home, school, and work, as well as composting and sustainability purchasing habits. The City’s educational efforts regarding recycling practices are supplemented by the Lackawanna County Office of Environmental Sustainability, but neither provide outreach that is specific to litter or illegal dumping.

ABATEMENT: LITTER

The organizations and programs primarily responsible for driving litter abatement efforts in Scranton are summarized in the table below.

ORGANIZATION/PROGRAM	DESCRIPTION
CITY OF SCRANTON DEPARTMENT OF PUBLIC WORKS (DPW)	DPW has one employee that performs street sweeping, active five days a week between April and November. The Department also provides free hauling and disposal for between one and three volunteer cleanup events across the City each year.

ORGANIZATION/PROGRAM	DESCRIPTION
CITY OF SCRANTON PARKS DEPARTMENT	<p>The Parks and Recreation Department has a crew of five park maintenance employees dedicated to cleaning Scranton’s 35 parks, and they spend approximately three hours per day emptying litter cans. Nay Aug Park alone contains over 50 litter cans, which sometimes serve as an attractant for litter and illegal dumping (instead of a deterrent, as intended).</p> <p>High school students requiring community service hours periodically assist park maintenance crews with park cleanup efforts.</p>
LACKAWANNA RIVER CORRIDOR ASSOCIATION	<p>The Lackawanna River Corridor Association (LRCA) is a non-profit organization created by local citizens to improve and maintain the ecological integrity of the Lackawanna River. LRCA efforts include litter and debris abatement in and around the Lackawanna River. Cleanup efforts are organized on an annual basis. In 2018, LRCA volunteers collected 80 cubic yards of waste materials and over 200 tires.</p>
SCRANTON TOMORROW	<p>Scranton Tomorrow is a non-profit community and economic development organization that serves the Scranton downtown area. In addition to their work improving the aesthetic appearance of downtown Scranton buildings and streetscapes, Scranton Tomorrow manages programs to remove litter from this dense commercial area including regular volunteer cleanup events. They recently hired two “Downtown Ambassadors” who clean streets and sidewalks with a broom and dustpan, and their daily presence also acts as a deterrence to littering and dumping activities.</p> 
THE UNIVERSITY OF SCRANTON	<p>Students at the University of Scranton host a semi-annual “Street Sweep” where students volunteer to pick up litter in local areas including the streets near campus, downtown Scranton, and Nay Aug Park.</p>

ABATEMENT: ILLEGAL DUMPING

City representatives believe that Scranton does have a highly visible illegal dumping problem. It is suspected that a significant portion of this problem stems from construction and repair contractors who work in Scranton and dump their waste in unsupervised areas instead of utilizing sanctioned disposal methods. While there is no reported program or crew dedicated to abatement of these sites on behalf of the City, the community has seen some collaborative clean-up projects such as the Parker’s Landing Cleanup highlighted below.

Parker's Landing Cleanup Project

Keep Northeastern Pennsylvania Beautiful (a multi-county Keep America Beautiful affiliate), the Lackawanna River Corridor Association, and the City of Scranton collaborated in 2016 to implement a cleanup project at Parker's Landing, a Lackawanna River access point in north Scranton that is a popular river recreation area but had also become a target of chronic illegal dumping activity. With a grant obtained from Lowes, the area was transformed into a paved water access loading area complete with a gate to control access and signage to deter dumping. The first phase of the project was dedicated to removing all of the existing dumped material. The collaborative team hosted a cleanup event for over thirty volunteers, and the local Waste Management branch supplied over 40 dumpsters. The team recovered approximately 400 tires and over 550 pounds of metal that was donated to a local scrap yard.

ENFORCEMENT

Scranton's Property Maintenance ordinance includes an enumeration of all activities that are considered "Quality of Life (QOL) violations", including the following which apply to littering and/or illegal dumping:

- QOL-008 Accumulation of rubbish or garbage
- QOL-010 Disposal of rubbish or garbage; dumping
- QOL-012 Littering or scattering rubbish
- QOL-014 Outside placement of indoor appliances/furniture
- QOL-015 Illegal dumping and improper disposal
- QOL-016 Placement of or littering by private advertising matter

According to code ordinance, the City reserves the right to perform cleanup activities through a City crew or third-party contractor if violations are not addressed in a timely manner. In this case, the City charges the violator with the full cost of cleanup (including \$75/hour for any time spent by City employees) in addition to any fines associated with the citation. These violations usually incur \$100 fines.

The Scranton Police Department (SPD) and the License, Inspections, and Permit Department (LIPS) work in unison to monitor and enforce laws against littering and illegal dumping. SPD employs four officers whose positions are funded by a federal grant obtained through the City of Scranton Office of Economic and Community Development, and each officer is assigned a section of the City which they patrol predominantly by bike or on foot. An estimated 25% of their time is dedicated to identifying blight and issuing QOL tickets; an estimated 5% of their time is spent handling litter and illegal dumping specifically. After QOL violation issuances, the LIPS team follows up to ensure that violations are resolved. These activities result in around 100 formal police reports each year logged as either "illegal dumping" or "littering".