



## DRIVING SYSTEMATIC CHANGE IN THE WAY WE APPROACH LITTER AND DUMPING IN PENNSYLVANIA

*A Case Study on Shifting State, County, and Local Resources from Cleanup to Prevention*



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*with support from Reynolds American, Inc.*

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“Systematic change takes time. Understanding the scope of a problem and the efficacy of existing tools in the toolbox are critical. As more and more states turn their attention to addressing litter and illegal dumping, our hope is that lessons learned in Pennsylvania can not only add value, but also serve as a roadmap to move the good work of keeping our communities clean and beautiful forward.”

– Shannon Reiter, President Keep Pennsylvania Beautiful

## INTRODUCTION

Keep Pennsylvania Beautiful (KPB) has affected systematic change in how many municipalities, counties and state agencies invest resources to address proper waste management in their communities. This includes increased investment in infrastructure, education, and enforcement to prevent litter and illegal dumping. We have accomplished this through sustained partnerships with state agencies, support from committed funders, and the hard work and dedication of our affiliate network and invaluable volunteers.

The *Pennsylvania Litter Action Plan*, released in 2021, by the Commonwealth, calls for all stakeholders to be proactive and work to prevent littering. What follows is a summary of how KPB built long lasting relationships with state agency partners and collaborated with various stakeholders over many years to develop the *Litter Action Plan*.

*“From rolling farmlands to majestic mountains to downtown urban centers, Pennsylvania beauty cannot be denied. Unfortunately, littering tarnishes our landscapes and roadways. Each year, 500 million pieces of trash are needlessly tossed out of vehicles or dumped illegally. While we do what we can, it is not sustainable to continually use our limited resources to clean up litter. We must be proactive and work to change behavior to prevent littering from happening in the first place.*

*The Commonwealth is proud to present Pennsylvania’s first-ever Litter Action Plan, developed by a team of state agencies and private sector partners, to offer recommendations and actions that everyone can take to keep our communities clean and free of litter. By working together, we can stop littering and protect our environment and quality for life for generations to come.”*

– Tom Wolf, Governor 2021

## Section 1. ORGANIZATIONAL HISTORY

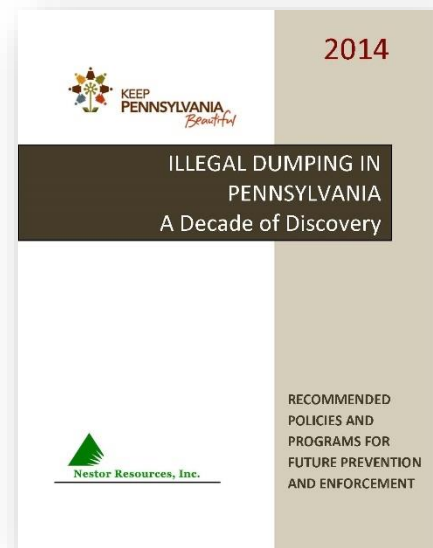
PA CleanWays (PACW) doing business as Keep Pennsylvania Beautiful (KPB), was founded in 1990 with the mission of empowering people to eliminate littering and illegal dumping in Pennsylvania. While the organization always had a multifaceted approach to its core mission including education, abatement, and

enforcement; as with any charitable organization, actual program development and delivery was driven by fund availability and funder investment. Historical key drivers for program development and delivery include the following:

- Late 1990s**      The state legislature passed the Forest Lands Beautification Act which funded the clean up of the State's vast state park and forest system. PA CleanWays, under the Forest Lands Beautification Program, received \$6,000,000 over 10 years. In total, KPB enlisted over 2,500 volunteers and collected over 6.8 million pounds of household trash, 30,000 tires, and 1 million pounds of scrap and more from our public lands. Through this initiative, PACW developed an unmatched expertise in illegal dumping and abatement, volunteer recruitment and management, and building local partnerships and stewardship in Pennsylvania.
- Mid 2000s**      The Department of Environmental Protection (DEP), a major funder for PA CleanWays, pulled back on environmental education and with that, PA CleanWays had to downsize, and even eliminate many of its educational programs. PA CleanWays focused its resources on identifying and cleanup of illegal dumps through PA Cleanways' Statewide Illegal Dump Survey program. This monumental effort, over ten years (2004-2014), accounted for, mapped, and inventoried more than 6,000 illegal dumpsites.
- Late 2000s**      The economic downturn further exacerbated the existing funding shortfall for education programs and after a decade of focusing on its core competencies of illegal dump cleanup and abatement, PA CleanWays had to scale back on additional unfunded or underfunded programs and explore strategic partnerships with several like-minded organizations. By 2008, PA CleanWays had become a 'lean and mean' cleanup machine and by leaning into who they were, the organization, in short, survived the economic downturn, lead a merger, and remained whole. The merger with Keep Pennsylvania Beautiful was announced in 2009.

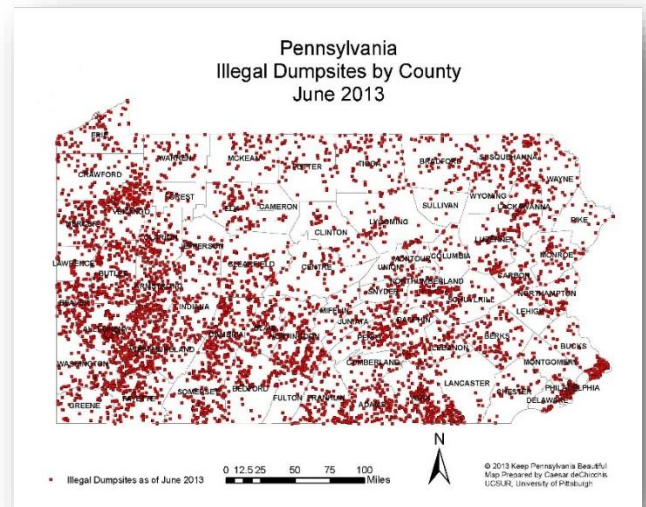
In 2009, PA CleanWays, now doing business as Keep Pennsylvania Beautiful not only had a new broader mission, to empower Pennsylvanians to keep our communities clean and beautiful but also an expanded grassroots network that reached all the way across the state to Philadelphia. By aligning with Keep America Beautiful (KAB), and becoming the state affiliate, the new Keep Pennsylvania Beautiful had access to a host of national corporate and nonprofit partners and a growing national grassroots network of likeminded organizations. While KPB had a broader mission, beyond litter and illegal dumping, funding related to comprehensive community improvement and environmental education remained limited. Therefore, KPB continued to focus on cleaning up communities fully knowing cleaning up was never the solution, but a necessary component of the broader strategy. KPB needed to make the case for the investment in preventative measures to meet its mission.

In 2014, in partnership with Nestor Resources, KPB made its first major attempt to drive systems change and more specifically, shift investment from abatement to prevention by releasing [\*Illegal Dumping in Pennsylvania A Decade of Discovery: Recommended Policies and Regulatory Changes to Prevent Illegal Dumping in Pennsylvania\*](#). This report was a culmination of over a decade of studying and mapping illegal dumpsites in every municipality across the Commonwealth, a public opinion survey and an illegal dump cleanup cost analysis. In summary, Keep Pennsylvania Beautiful documented over 6,000 illegal dumpsites and found that the average community cleanup cost nearly \$3,000 and it cost \$617/ton to cleanup an illegal dumpsite, nearly nine times the cost of proper disposal at a landfill. Armed with the facts, Keep Pennsylvania Beautiful issued the following recommended policies and programs for future prevention and enforcement:



### Actions to Prevent and Enforce Against Illegal Dumping

- At the residential level, possible solutions include: ensuring that all residents have universal access to waste and recycling collection; expanding curbside collection; developing staffed, convenient drop-off facilities; providing for collection of bulk items and appliances at curbside or at convenient drop-off facilities; shifting county municipal waste planning from disposal capacity to universal access; promoting municipal contracts to control costs and universal services; and instituting a subsidy for eligible low income households.
- Requiring proof of disposal for all building or demolition projects and prior to granting local occupancy permits would mitigate commercial dumping. Likewise, waste transporter authorization should be expanded to include small contractors, remodelers, and roofers. Other solutions include requiring waste tire transporters to submit logs, or for transporters, processors, and retailers to utilize a manifest system to track loads of tires.



### Raising Awareness, Recommendations for Enforcement

- The implementation of a statewide multimedia education campaign on proper waste management and the establishment of an environmental law training program for enforcement officers and justices would raise awareness of the issue. On the physical level, installing barriers and crime scene tape at dumpsites would further emphasize the criminal nature of the activity.



- Expanding the use of surveillance cameras at illegal dump sites throughout the state, as well as establishing a consistent fine structure that significantly outweighs the avoided cost of disposal, would serve as the primary methods of enforcement.
- Recommendations for prosecution include revoking transporter licenses, forfeiture of equipment, requiring community service for certain violations, and dedicating penalties to a cleanup fund. Establishing a Joint Code Enforcement Officer Program to support local governments, building an Expert Witness Bureau, creating an “Environmental Law Court Day,” or dedicating a District Justice would serve to expedite cases.
- Finally, there is a recommendation to amend the Covered Device Recycling Act (CDRA) to require scrap dealers to report on receipt of certain components from covered devices and improve and simplify other elements of implementation.

While the report was shared widely throughout state, county and local governments and the waste and recycling community, the recommendations themselves did not receive as much traction as we had hoped, and we forecasted the continued endless cycle of cleanups. With three decades of experience, and several large-scale programs and research efforts under our belt, we decided to shift our focus and our approach. While addressing litter and illegal dumping requires different tactical solutions, the larger strategy of utilizing education, infrastructure and enforcement apply to both so we tried again. For the litter research effort, we sought lead partners that not only had a stake in the challenges litter brings to our communities, but also more influence in the world of public policy.

Starting in 2017, we collaborated with state agencies through a similar process that led us to the 2014 recommendations, only this time the focus was on litter prevention. This effort included extensive fundraising, research, stakeholder engagement and the release of *Pennsylvania’s Litter Action Plan*. While KPB led the fundraising and research components, the planning, stakeholder engagement and the development of the *Litter Action Plan* was led by DEP and PA Department of Transportation (PennDOT) policy staff with technical support from KPB.

The following information details this process including the who, what, when and how. By detailing this information, and sharing specific outcomes from this process, our hope is that other states can implement a similar process to advance change.

To review *Illegal Dumping in Pennsylvania: A Decade of Discovery* visit, <https://www.keppabeautiful.org/wp-content/uploads/2021/08/KPB-Recommendations-August-2014-USE-THIS-ONE.pdf>.

## Section 2. KEY STATE AGENCY RELATIONSHIPS

Since 1990, Keep Pennsylvania Beautiful and the Commonwealth of Pennsylvania have enjoyed a strong partnership. KPB has worked with many state agencies in different capacities over the years and has built a strong relationship with not only the agencies, but the individuals that work within them. While KPB

has secured multiple contracts with different agencies over the years, KPB considers the relationship with the Commonwealth a two-way street. KPB has had remarkable success in leveraging public dollars to secure private funding to amplify its impact, which is a win-win for everyone. KPB has made it a goal to not only add value to the communities it serves but the governments that support them. Examples include the implementation of the Cigarette Litter Prevention Program, funded by competitive grants from Keep America Beautiful, for state facilities for over five years including state parks, marinas, welcome centers, and rest stops. Another example is the technical assistance provided for the development of the PA Fights Dirty Campaign. Finally, state agencies rely on KPB for their expertise and continually refer residents and local governments to KPB for assistance related to litter, illegal dumping, and proper disposal.

Below is a historical summary of these critical relationships.

### 2.1 Pennsylvania Department of Environmental Protection (DEP)

The Keep Pennsylvania Beautiful partnership with DEP dates to the mid-1990s. Many, if not most, of KPB's key programs, from education to abatement to enforcement support have been sponsored by DEP and driven by DEP funding, specifically from the Bureau of Waste Minimization and Coastal Resources Management Program (CRM).

The Bureau of Waste was the lead funder for signature programs such as the Statewide Illegal Dump Survey, the original [Open Your Eyes to Litter](#) educational series and [Illegal Dump Free PA](#), illegal dumping enforcement support, just to name a few. The Bureau has been the lead sponsor for the [Pick Up Pennsylvania](#) program since 2005. KPB has had a contractual relationship with the Bureau of Waste for three decades. This relationship has been the bedrock of our ability to impact Pennsylvania communities over the years.

In addition to the relationship with the Bureau of Waste, KPB has had contracts with the Coastal Resources Management Program. Through this contractual relationship, KPB has supported countless community cleanups in the Delaware and Erie Coastal Zones. Also, it was with recent support from CRM that KPB launched the [Pennsylvania Waterway Stewards](#) program.



KPB meets with the PA Department of Environmental Protection.



PennDOT receives recognition for supporting KPB's Pick Up Pennsylvania program.

KPB worked closely with DEP's policy office to write the *Litter Action Plan* in 2020 and host two Litter Summits in 2018 and 2022.

## 2.2 Pennsylvania Department of Transportation

The Keep Pennsylvania Beautiful partnership with PennDOT dates to the organization's early years when PA CleanWays' founder, Sue Wiseman, was organizing roadside cleanups. Since then, PennDOT has consistently supported our volunteers and their cleanup efforts whether through direct provision of supplies or through the loan of roadway safety signs. A more formal partnership was established in the early 2000s for the Great American Cleanup of PA, now known as Pick Up Pennsylvania. KPB directs bulk donated supplies to the Department of General Services warehouse and PennDOT then transports the supplies to all their county adopt-a-highway offices where registered KPB volunteers can pick them up. These supplies, donated by corporate, organizational and agency partners, represent millions of bags, gloves, and vests over the years in support of volunteer cleanups. This partnership drives the efficient distribution of cleanup supplies which enabled KPB to scale the program to all sixty-seven counties. In 2020, this supply distribution partnership was expanded to the fall cleanup program, in support of the Ocean Conservancy's International Coastal Cleanup.

In 2018, PennDOT partnered with DEP to support KPB's role in the *Pennsylvania Litter Research Study* and that partnership continued as KPB worked closely with PennDOT's policy office to write the *Litter Action Plan* in 2020 and host two Litter Summits in 2019 and 2022.

In 2021, KPB entered its first contract with PennDOT to launch the Young Ambassadors of Pennsylvania program. This program aims to build community stewardship by inspiring, engaging, and empowering young Pennsylvanians to keep their communities clean and beautiful and to develop civic leaders to champion and advocate for clean and beautiful communities across Pennsylvania.

## 2.3 Department of Conservation and Natural Resources (DCNR)

Keep Pennsylvania Beautiful worked with DCNR on the Forest Lands Beautification Program to clean up and prevent illegal dumping throughout the state parks and forest system from 1999 through 2005. In total, we enlisted more than 2,500 volunteers and collected more than 6.8 million pounds of household trash, 30,000 tires, one million pounds of scrap and so much more from our public lands.



Ridge Road North, Michaux State Forest - 470,000 pounds of trash, scrap and tires were removed.



Keep Pennsylvania Beautiful worked with the Bureau of Recreation and Conservation (BRC) on greenways cleanups and education efforts. We developed and published *Open Your Eyes to Litter in a Greenway* as part of our popular *Open Your Eyes to Litter* educational series.

Through our Illegal Dump Free PA Program, we loan surveillance equipment to local communities and support enforcement and education efforts and worked very closely with some state forests, most notably Michaux State Forest. Ranger Todd Ottinger received a National Enforcement Award from Keep America Beautiful for his efforts to prevent and enforce illegal dumping.

We have an on-going program with individual State Parks through the [Cigarette Litter Prevention Program](#), where we provide cigarette receptacles and educational materials to reduce cigarette litter in state parks that have not transitioned to smoke-free facilities. Cigarette litter remains an on-going challenge across the state. Currently, KPB is working closely with DCNR at Presque Isle State Park in Erie to increase waste disposal education and infrastructure to reduce park user littering at the heavily visited state park.



**Cigarette Litter Prevention Program signs** – Presque Isle State Park (l), Ohio State Park (r).

## 2.4 Department of Community and Economic Development (DCED)

Keep Pennsylvania Beautiful has long worked with community and economic development organizations through many of its community improvement program initiatives including the Pennsylvania Downtown Center (PDC), the only statewide nonprofit dedicated solely to the revitalization of the commonwealth's core communities. However, it was not until recently that KPB began working directly with DCED and this was through the development of Pennsylvania's first litter prevention campaign, [PA Fights Dirty](#). DCED led the creative development behind the campaign and brought KPB in to serve as an advisor. This partnership continues as the two work collaboratively to drive local and statewide activation through both public and private entities. Most recently, KPB applied for the Pennsylvania Education Improvement

Tax Credit which is administered through DCED and provides a tax incentive for corporations to fund education-based programs in Pennsylvania.

## Section 3. LITTER RESEARCH INITIATIVES

There were two primary research initiatives that served as the foundation for the Litter Action Plan. These include the *Pennsylvania Litter Research Study* and *The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities, 2019*. Conducting two major research efforts in tandem was a significant undertaking. However, with a talented team of contractors, committed stakeholders, and willing and dedicated partners, Keep Pennsylvania Beautiful delivered both reports in a coordinated release in February of 2020.

### 3.1 Pennsylvania Litter Research Study

The [\*Pennsylvania Litter Research Study\*](#) was a project of Keep Pennsylvania Beautiful with funding support from PA DEP and PennDOT. KPB contracted with Burns and McDonnell to complete the study. The study included findings from three separate research efforts along with recommendations to address litter in Pennsylvania. The research included a visible litter study of Pennsylvania roadways, a public attitude survey and stakeholder input from a Litter Summit.

The *Visible Litter Study* provided a comprehensive understanding of the quantity, composition, and sources of litter on roadways. The research team surveyed 180 sites statewide, categorized litter into six material grounds that were then subdivided into 85 material groups. Each litter item was assigned to one of six sources.

The *Public Attitude Survey* provided an understanding of Pennsylvania residents' opinion of the effects of litter, prevalence of litter, instance of littering, tobacco littering, consequences of littering, and litter prevention and abatement in the Commonwealth. The phone survey reached 500 residents statewide. Finally, as part of this effort, KPB, in partnership with DEP and PennDOT, hosted a Litter Summit in the fall of 2018. The Summit agenda is attached as Appendix 1. More than 120 stakeholders from across the public, private and nonprofit sectors came together to learn about the results of the Visible Litter and Public Attitude Survey and provide input into how we can prevent littering in Pennsylvania.

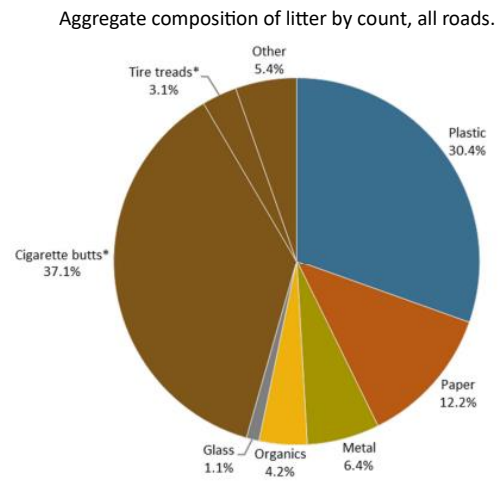
Key findings from the *Pennsylvania Visible Litter Study* include:

- Pennsylvania roadways are littered with approximately 502.5 million pieces of litter.
- Of the total estimated litter on Pennsylvania roadways, 186.2 million (37.1 percent) pieces were cigarette butts followed by 152.9 million (30.4 percent) pieces of plastic. Plastic film is the most



prevalent type of plastic littered on Pennsylvania roadways followed by plastic beverage containers.

- Most of the litter on Pennsylvania roadways (429.8 million pieces or 85.5 percent) is 4 inches or smaller in size; however, the study estimates there is still a significant quantity (72.7 million pieces or 15.5 percent) of larger, and often more visible, litter on Pennsylvania roadways.
- Beverage containers and plastic film were the most predominant types of larger litter. Cigarette butts are the most common of the smaller items littered. Some material categories, such as tire tread, food packaging film, other plastic, and other organics, are within the top ten materials for both large and small littered items.
- An estimated 29.3 million beverage containers and 12.3 million fast food items are currently littered on Pennsylvania roadways.
- Motorists and pedestrians are leading sources of litter for both small and large items. For litter items greater than four inches, improperly secured loads also become a leading source.
- In aggregate, local roads had the highest percentage (34.9 percent) of total litter items by roadway type statewide.
- The primary distinction identified by roadway types was the litter source. Motorists contributed the most litter to interstate roadways (69.7 percent) and decreasing amounts to arterial (65.6 percent), collector (58.0 percent), and local (50.0 percent) roadways. In contrast, pedestrians contributed the most to local roadways (32.9 percent) and decreasing amounts to collector (32.0 percent), arterial (23.3 percent), and interstate (0.1 percent) roadways. Improperly secured loads contributed more to interstates (11.3 percent) than to any other roadway type.
- Urban roads had approximately 2,585 litter items per mile. In comparison, rural roads had approximately 1,635 litter items per mile.



Key findings from the public attitude survey include:

- Over 90 percent of survey respondents reported that litter is a problem in the Commonwealth.
- Respondents believe litter impacts the environment, waterways, property taxes, home values, tourism and businesses, and community safety.
- Respondents reported that the primary types of litter are fast food packaging, plastic film, beverage containers and tobacco products. Their perceptions are in line with the survey findings, as these four categories were among the most identified litter items along roadways.
- Respondents believe that the two primary causes of litter are:
  - People do not care about the effects of litter and
  - Littering happens when a convenient receptacle is not available.
- Approximately 80 percent of respondents said, “Not likely at all.” when asked how likely it is for someone to get caught or fined for littering.

- About one-half of the survey respondents expressed that they could recall seeing or hearing litter abatement advertisements in Pennsylvania. Of survey respondents that could recall litter public education and outreach, about one-half reported such litter public education and outreach was rare.

Feedback received from Litter Summit attendees on how to reduce and eradicate litter in Pennsylvania included:

- Most Litter Summit attendees responded that regulations and enforcement (51.7 percent) and infrastructure (37.2 percent) should be the focus for reducing littering and illegal dumping.
- Litter Summit attendees identified the need to educate the public as to the negative impacts of litter. For example, attendees stated the need to increase awareness that litter on land will end up in Pennsylvania waterways.
- Attendees stated that additional funding was needed for enforcement personnel and infrastructure.
- Expanding access to solid waste management infrastructure and recycling facilities, particularly for electronics and household hazardous waste, was identified a way to prevent illegal dumping. In addition, attendees stated more litter receptacles and cigarette butt stations would assist with reducing litter in Pennsylvania communities.

As part of a larger communication strategy related to the study, KPB issued a Post Summit Summary Report and Research Update that provided details on sponsors, attendees, and feedback. This summary can be found in Appendix 2, as reference.

To review the *Pennsylvania Litter Research Study* visit, <https://www.keppabeautiful.org/wp-content/uploads/2021/07/Pennsylvania-Litter-Research-Study-Final-Report-1.30.2020.pdf>

### **Funding Structure**

KPB was under contract with PA DEP to conduct community stewardship, education, cleanup, and enforcement support when it was decided to pursue this research. Instead of seeking additional funding and a new contract, the existing scope of work was amended to account for this project. PennDOT agreed to pay for half of the research and provided their portion of the funding in support of the research effort to DEP and those funds were added to the contract total. The Litter Summit, hosted by KPB in partnership with DEP and PennDOT was sponsored by industry stakeholders and private foundations.

### **Partners and Roles**

Burns and McDonnell were the lead contractors on this initiative. PennDOT and DEP funded the Pennsylvania Litter Research Study, and both acted in an oversight and advisory role along with Keep Pennsylvania Beautiful.



**Table. 1 Pennsylvania Litter Research Study Timeline and Key Milestones**

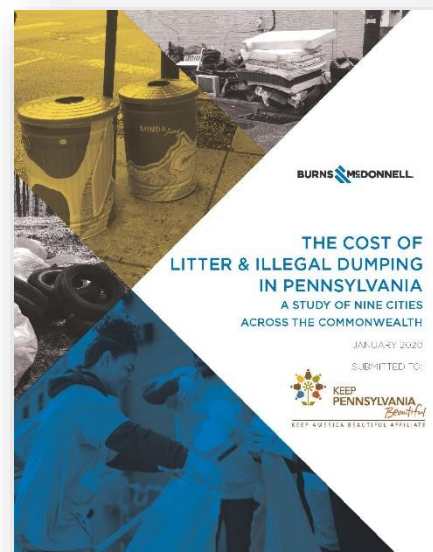
Date	Development, Engagement and Administrative Milestones	Milestone Category		
		Dev	Eng	Admin
Sept 2017	Strategy Session to Conceptualize Project		X	
April 2018	DEP and PennDOT Commit to Fund Visible Litter Research	X		
April 2018	Retain Burns and McDonnell to conduct Visible Litter Survey			X
April 2019	Agency Workgroup Review of Methodology		X	
Aug 2019	State Agency Executive Briefing on Findings		X	
Nov 2019	Inaugural Litter Summit Convened in Harrisburg, PA		X	
Feb 2020	Comprehensive Pennsylvania Litter Research Released			X

### 3.2 The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities, 2019

KPB believes that to change the hearts and minds of people in power, litter and illegal dumping needs to be framed as an economic issue, not just an environmental one. With that in mind, in 2019, Keep Pennsylvania Beautiful contracted with Burns & McDonnell to survey Pennsylvania cities to determine municipal costs of litter and illegal dumping.

[\*The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities Across the Commonwealth\*](#), expanded our efforts

to quantify the challenges associated with litter and illegal dumping and provided an in-depth analysis of the costs incurred by individual municipalities when managing litter and illegal dumping at the municipal level. The study provided cost averages for the following: Litter Prevention, Illegal Dump Prevention, Education and Outreach, Litter Abatement, Illegal Dump Abatement, and Enforcement. As KPB continued to advocate for universal access for convenient and affordable trash disposal and recycling, this data was critical in advancing calls for support for a more proactive approach when addressing litter and illegal dumping at the local, county and state levels.



KPB targeted cities that were closely tied to Keep Pennsylvania Beautiful Affiliates. However, any city wishing to participate was considered. KPB worked for a year to enroll a diverse group of participants both in population and geography. The recruitment process included the initial release of a Request for Participation, countless meetings with individual city representatives to review research methodology and cost and benefits to participants, and a signed Memorandum of Understanding between the city and KPB.

City officials had to decide if they wanted to participate and commit to providing the data for the analysis; not all recruited cities chose to participate and some cities that expressed interest were not

enrolled in the study. The study included nine cities: Allentown, Altoona, Erie, Harrisburg, Lancaster, Philadelphia, Pittsburgh, Reading, and Scranton. Each city received a full cost accounting of their activities and their case study in the final report.

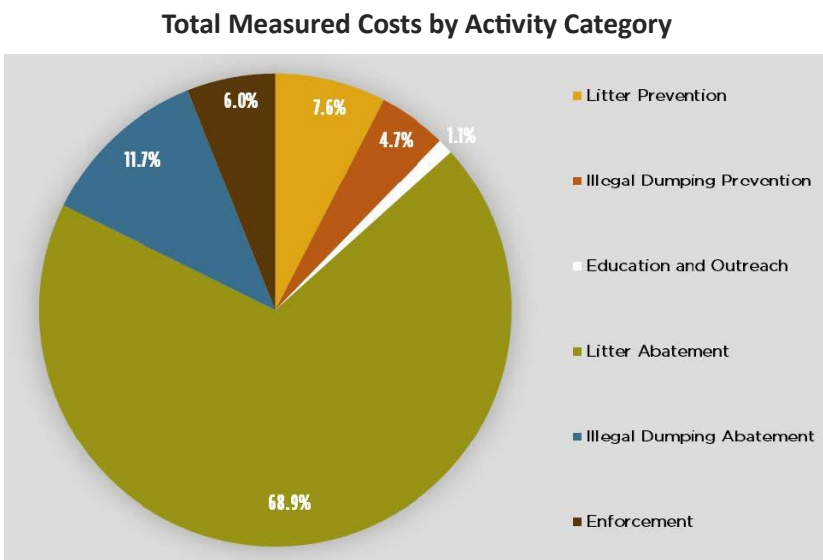
Key Findings of The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities, 2019 include:

- 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.
- Cities collectively spent the most money on litter and illegal dumping abatement activities, specifically \$54.5million or 80% of the total.
  - Litter abatement activities include street sweeping or cleaning programs that serve to clear litter 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 Pick Up PA and smaller ongoing programs led by community-based organizations.
  - Illegal dump abatement activities include city personnel cleaning up and properly disposing of dumped materials.

#### Nine Cities Spend More Than \$68.5 Million Annually to Prevent and Clean Up Litter and Illegal Dumping

City	Prevention		Education & Outreach	Abatement		Enforcement	Total	Population <sup>1</sup>
	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	\$ 1,757,500	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
<b>Total</b>	<b>\$ 5,851,800</b>	<b>\$ 3,231,700</b>	<b>\$ 776,700</b>	<b>\$ 46,684,800</b>	<b>\$ 7,886,600</b>	<b>\$ 4,090,200</b>	<b>\$ 68,521,800</b>	<b>2,421,118</b>

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



To review *The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities, 2019* [visit, https://www.keppabeautiful.org/wp-content/uploads/2021/07/KPB-Litter-Cost-Study-013120.pdf](https://www.keppabeautiful.org/wp-content/uploads/2021/07/KPB-Litter-Cost-Study-013120.pdf).

### Funding Structure

Conducting the cost study was not a part of the original development plan for the *Pennsylvania Litter Research Study*. However, Keep Pennsylvania Beautiful knew how important the research study would be to make the case for litter prevention. Therefore, the organization decided to self-fund the project if needed, to ensure that it could be rolled out simultaneously to the *Pennsylvania Litter Research Study*. With that commitment in mind, KPB began both development efforts and recruitment efforts. KPB did secure partial funding from the Richard King Mellon Foundation and established a cost sharing model for participating cities. KPB provided the rest of the funding for this effort.

The cost sharing model required cities to provide 25% of the projected cost for their city based on population as outlined in Table 1. of the Request for Participation, Appendix 3. This cost-sharing approach demonstrated that each participating city was committed to working towards a long-term, strategic solution to litter and illegal dumping in their communities.

### Partners and Roles

Burns and McDonnell were the lead contractors on this initiative and did an incredible job piecing the data together. Every city had at least one employee that championed the effort and countless different departments provided relevant data. While some of the larger cities, like Philadelphia had fiscal records that could be directly linked to litter and illegal dumping activities, many of the smaller cities did not and those costs needed to be parsed out of budgets and fiscal reports. Simply put, this study was a significant undertaking that took time, patience, and an abundance of goodwill.

**Table 2. The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities Timeline and Key Milestones**

Date	Development, Engagement and Administrative Milestones	Milestone Category		
		Dev	Eng	Admin
Sept 2018	KPB Board approves self-funding the Municipal Cost Study	X		
Oct 2018	KPB Submits Proposal to Richard King Mellon (RKM) Foundation	X		
Nov 2018	Request for Participation Issued to Identified Cities		X	
Dec 2018	Retain Burns and McDonnell to conduct Municipal Cost Study			X
Jan 2019	RKM Foundation Awards Funding	X		
Jan 2019	Philadelphia Signs Cost Study MOU	X	X	
Jan 2019	Lancaster Signs Cost Study MOU	X	X	
Feb 2019	Erie Signs Cost Study MOU			
Feb 2019	Reading Signs Cost Study MOU	X	X	
May 2019	Allentown Signs Cost Study MOU	X	X	
June 2019	Pittsburgh Signs Cost Study MOU	X	X	
June 2019	Scranton Signs Cost Study MOU	X	X	
Oct 2019	Harrisburg Signs Cost Study MOU	X	X	
Dec 2019	Altoona Signs Cost Study MOU	X	X	
Feb 2020	Cost Study Released in conjunction with Pennsylvania Litter Research Study			X

### 3.3 Promotion of Litter Research

Keep Pennsylvania Beautiful worked with state agencies and participating cities to develop a communications strategy that included compounding releases from different stakeholders, drove media to one state sponsored central webpage for litter related research and support materials including photos, fact sheets, and the research itself and provided direct access to representatives of the state, KPB and participating cities. This strategy is further explained in Appendix 4, Litter Research Contacts for Media Inquiries.

The state issued a press release, Appendix 5, which featured the statewide results of the *Visible Litter Survey*. KPB issued a release focusing on *The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities* timeline and is included as Appendix 6. Each City then issued a local release that featured their specific data and told their local story. The sample release each City was provided is attached as Appendix 7.

KPB tracked media hits for three months post release and documented an estimated fifty individual stories tied to the results of the litter research which are listed in Appendix 8, Media Hits March 2020.



## Section 4. LITTER ACTION PLAN (LAP)

*“We now have data from the most comprehensive statewide litter research effort ever conducted in Pennsylvania. DEP is committed to working with our partners to use it strategically to shift the state’s approach to litter from cleanup to prevention, so that Pennsylvanians may gain community economic, and environmental advantages they’re now sacrificing to litter cleanup.”*

*- DEP Secretary McDonnell, February 4, 2020*

### Project Summary<sup>1</sup>



PA Department of Environmental Protection, PennDOT and KPB attend a press event where Governor Wolf presents Pennsylvania’s first ever Litter Action Plan.

Given the large volumes of litter found across Pennsylvania and the high costs that state and local governments spend each year to try to address it, as demonstrated by the *Pennsylvania Litter Research Study* and *The Cost of Litter & Illegal Dumping in Pennsylvania* reports, DEP and PennDOT, with support from Keep Pennsylvania Beautiful, began development of a multi-stakeholder initiative to identify ways to change Pennsylvanians’ behaviors to end littering. The recommendations on how to end littering developed as part of

this initiative would then be included in Pennsylvania’s first ever [Litter Action Plan](#) report as a reference tool for all Pennsylvanians on how they can be a part of the solution to Pennsylvania’s littering problem.

The initiative formally began in spring 2021 with the development of four workgroups made up of state and local government representatives, members of the Pennsylvania General Assembly, environmental and community groups, and businesses across Pennsylvania. These workgroups were loosely based on the four behavior strategies identified in KAB’s model for change, Appendix 9.

Accordingly, the four workgroups that were formed as part of the Litter Action Plan initiative were:

***The Litter Education and Outreach Workgroup*** – Education and outreach are essential components to making sure all Pennsylvanians know littering is unacceptable and there are better ways to manage their

<sup>1</sup> *Pennsylvania State Litter Action Plan* <https://www.dep.pa.gov/Business/Land/Waste/littering/Pages/Litter-Action-Plan.aspx>

waste. This workgroup focused on potential outreach strategies and recommendations for a statewide anti-litter education campaign.

***The Infrastructure Workgroup*** – Ensuring infrastructure, like trash cans and waste management services, are available to all Pennsylvania’s communities is key to addressing the issue of litter in Pennsylvania. This workgroup focused on ways to ensure Pennsylvania communities have the necessary infrastructure in place to help ensure there are ample ways to properly manage commonly littered items.

***The Litter Laws and Enforcement Workgroup*** – Regulations and enforcement are a tool at preventing and deterring littering behavior. This workgroup evaluated the effectiveness of current ordinances, laws and statutes and their enforcement as it relates to reducing litter in Pennsylvania. The workgroup also identified possible statutory and enforcement updates to ensure littering regulations are enforced.

***The Partnerships Workgroup*** – Government cannot tackle litter alone. This workgroup involved businesses and industry leaders to provide feedback on the recommendations heard in other workgroups and work to identify ways to help reduce litter across the state.

The four workgroups met throughout the spring of 2021 to brainstorm recommendations relative to the workgroup focus areas. DEP and PennDOT staff facilitated these conversations, and workgroup participants had robust discussions about potential solutions. Following these brainstorming meetings, the recommendations provided by the workgroups were formatted into draft recommendations, and the workgroups reconvened in September 2021 to provide feedback on the draft recommendations. This final *Litter Action Plan* reflects the final recommendations from the four workgroups.

## **Funding Structure**

The *Litter Action Plan* was led by PennDOT and DEP Policy Offices with technical support from Keep Pennsylvania Beautiful. All workgroup meetings were held virtually. There were no direct costs to KPB, or workgroup members and their participation was voluntary.

## **Partners and Roles**

KPB, DEP and PennDOT identified potential participants based on previous engagement, existing relationships, and attendance at the 2019 Litter Summit. The public was not invited to participate, but a wide and diverse group of interest groups were invited and thus represented, including local, county and state governments, community and economic development organizations, representatives from the enforcement and judiciary community, educators, environmental groups, and legislators.

Representatives from various industries also participated including waste and recycling, food and beverage, packaging, tourism, and numerous trade associations representing said industries. A full list of workgroup participants is listed on the *Litter Action Plan* website,

<https://www.dep.pa.gov/Business/Land/Waste/littering/Pages/Litter-Action-Plan.aspx>.

## Timeline and Key Milestones

Date	Milestone	Milestone Category		
		Dev	Eng	Admin
March 2021	KPB, PennDOT, DEP Identify Potential Workgroup Members			X
April 2021	Invitations Sent to Stakeholders to Participate in LAP Workgroup		X	
April 2021	State Agency Briefing on Litter Research, Workgroups, and Roles			X
May 2021	LAP Workgroup Kick-off Meeting with all Workgroup Participants		X	
May 2021	LAP Workgroup Meetings Held		X	
Sept 2021	Draft LAP is Presented to Workgroups for Review		X	
Nov 2021	Governor Releases Litter Action Plan			X

## Section 5. OUTCOMES

What follows are just a few examples of structural, regulatory, or programmatic outcomes tied to the *Litter Action Plan* and or efforts leading up to the Plan.

### 5.1 PA Fights Dirty, Department of Community and Economic Development, Commonwealth of Pennsylvania

The campaign and related campaign materials can be found on the PA Department of Community & Economic Development website: <https://dced.pa.gov/litter/>.

As called for in the *Litter Action Plan*, On August 2, 2022, the Wolf Administration joined Keep Pennsylvania Beautiful representatives to announce the launch of the statewide anti-litter campaign, “[PA Fights Dirty: Every Litter Bit Matters.](#)”

“Every Litter Bit Matters” calls upon Pennsylvanians to ensure every piece of their trash, regardless of size, is disposed of properly. The campaign is based on research that shows only 3% of Pennsylvanians approve of littering, yet 40 to 50 percent litter. “Every Litter Bit Matters” will educate Pennsylvanians on situational littering, such as leaving trash on the ground next to a full can or in a stadium, as well as remind Pennsylvanians that litter of all sizes stacks up and creates problems.



PA Department of Environmental Protection, PennDOT and KPB present at the PA Fights Dirty kick-off event.

PA Fights Dirty was developed as part of the Wolf Administration’s Litter Action Plan and in response to Keep Pennsylvania Beautiful’s 2019 Pennsylvania Litter Research Study, which found Pennsylvania has

more than 500 million pieces of litter on its roadways. More than 85 percent of these pieces are less than four inches in size. “Every Litter Bit Matters” encourages Pennsylvanians to properly dispose of even their smallest pieces of trash.

## 5.2 Rural Transfer Station Rule - Department of Environmental Protection, Commonwealth of Pennsylvania

Municipal Waste Rural Transfer Facility Permit-By-Rule final regulation was published in the *Pennsylvania Bulletin* on Saturday, October 29, 2022. This rule, long championed by Keep Pennsylvania Beautiful, aims to provide convenient and affordable access to waste disposal and recycling services in rural areas of Pennsylvania.

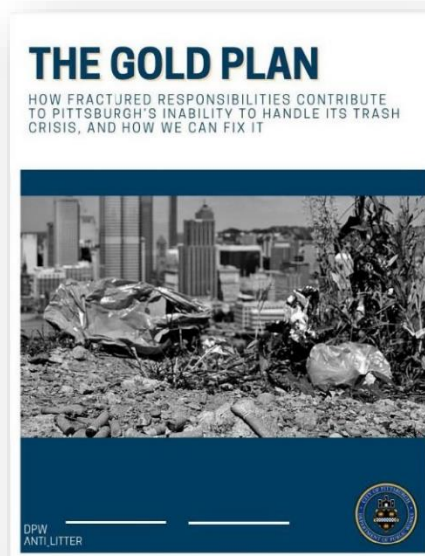
As stated in the Final-Form Rulemaking, Rural Transfer Facility Permit-by-Rule, “By establishing a permit-by-rule for persons to operate a rural transfer facility in areas where trash collection and recycling services are currently not economically feasible, rural Pennsylvanians are now able to responsibly dispose of their waste and recycling by dropping it off at a convenient location to be transferred to a permitted disposal or processing facility. Gaining access to disposal and recycling options will, in turn, help to alleviate the mismanagement of residential municipal waste and reduce associated burning or illegal dumping of waste in rural parts of Pennsylvania. This will help to alleviate the costs state and local governments incur to clean up illegal dump sites and reduce the enforcement costs the Department currently incurs to respond to burning and illegal dumping complaints.” Reference links include:

*EXECUTIVE SUMMARY Final-Form Rulemaking Rural Transfer Facility Permit-by-Rule* [00 7-564 rtf pbr final exec summary.pdf \(state.pa.us\)](#)

*Final Rulemaking: Municipal Waste Rural Transfer Facility Permit-By-Rule Environmental Quality Board Presentation, July 12, 2022* [Microsoft PowerPoint - 01 7-564 RTF PBR Final EQB Presentation FINAL \(state.pa.us\)](#)

## 5.3 GOLD Plan - City of Pittsburgh

Building on the city’s participation in and the data presented by *The Cost of Litter and Illegal Dumping in Pennsylvania: A Study of Nine Cities, 2019*, the city developed their GOLD (Goals on Litter and Illegal Dumping) Plan, a two-pronged approach for city investments in anti-littering and dumping initiatives and opportunities for residents to help in their communities. The Plan illustrates how fractured responsibilities contribute to Pittsburgh’s inability to handle its trash crisis and lays out a plan to fix it by creating a Department of Public Works Division that handles every aspect of the City’s ongoing trash crisis: enforcement, abatement, and prevention. [The GOLD Plan](#) report can be found at the



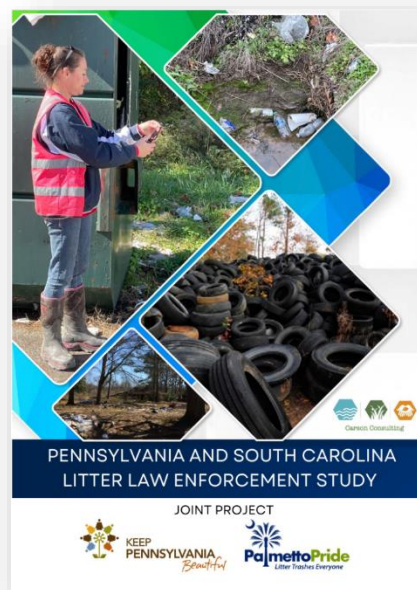


following link: [https://apps.pittsburghpa.gov/redtail/images/15402\\_Updated\\_GOLD\\_Plan\\_Report.pdf](https://apps.pittsburghpa.gov/redtail/images/15402_Updated_GOLD_Plan_Report.pdf)

#### 5.4 Litter Law Enforcement Study Joint Project - Keep Pennsylvania Beautiful and Palmetto Pride

In January of 2023, in response to the *Litter Action Plan's* calls for litter law enhancements, Keep Pennsylvania Beautiful and PalmettoPride announced a comprehensive joint study on the efficacy of state litter statutes and enforcement practices and procedures, [\*Pennsylvania and South Carolina Litter Law Enforcement Study\*](#). This multi-state study is the first of its kind in the country and can serve as a benchmark to measure litter control enforcement efforts across the country.

The two states engaged with Carson Consulting to review existing state litter laws and interview key stakeholders to evaluate the strength of the states' current litter enforcement tools and systems. Carson Consulting conducted a mixed-methods study examining five years of data from 2016 – 2020 and conducted interviews with representatives of law enforcement and judicial officers to gain on-the-ground insight. The primary focus of the research included examining Pennsylvania and South Carolina statutes regarding penalties and reviewing the attitudes, behaviors, and influences that emerge by comparing case disposition with interviews.



Four key takeaways from the study reveal that enforcement is considered necessary to stopping littering and illegal dumping, but that activity is low; officers or judges do not favor high fines; there is a high rate of guilty convictions; and community service requirements are considered effective in sentencing.

This study was funded in part by the Pennsylvania Department of Environmental Protection and can be found at the following link: <https://www.keeppabeautiful.org/wp-content/uploads/2023/01/Joint-PA-and-SC-Litter-Law-Enforcement-Report-2023.pdf>.

#### 5.5 Law Enforcement Field Training Days, Department of Conservation and Natural Resources

DCNR developed a field training class for new rangers to cover a variety of topics. This training complements the academy and new officer training with a focus on field applications and citation issuance. As the *Litter Action Plan* called for litter enforcement training, and on the heels of the Keep Pennsylvania Beautiful's enforcement research, DCNR incorporated an overview of littering violations and how to handle them as part of the training.

## 5.6 Litter Legislation - Commonwealth of Pennsylvania

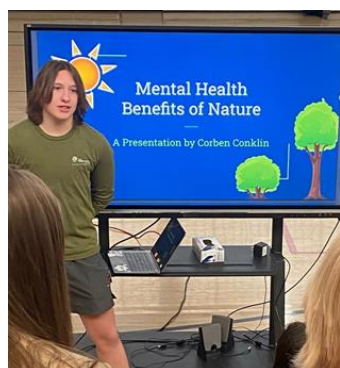
House Bill No. 1044 was introduced in April 2023 and amends Title 75 (Vehicles) of the Pennsylvania Consolidated Statutes, in registration of vehicles, further providing for acknowledgment of littering provisions; and, in licensing of drivers, further providing for acknowledgment of littering provisions.

HB 1044 passed the House on October 2, 2023. Bill information and history can be found at the following link: <https://www.legis.state.pa.us/CFDOCS/billInfo/billInfo.cfm?year=2023&body=H&type=B&bn=1044>

## 5.7 Young Ambassador Program - Keep Pennsylvania Beautiful and Pennsylvania Department of Transportation



As recommended in the *Litter Action Plan*, Keep Pennsylvania Beautiful, with funding from Pennsylvania Department of Transportation (PennDOT) launched the [Young Ambassadors of Pennsylvania](#) program in the fall of 2022. The program seeks to build community stewards and civic leaders by inspiring, engaging, and empowering young Pennsylvanians to not only keep their communities clean and beautiful but also to become ambassadors in their community for a shared vision of a clean and beautiful Pennsylvania.



A KPB Young Ambassador presents the benefits of nature for mental health to peers.

The Young Ambassadors program provides opportunities for high school students to train and network with industry leaders, state agencies, young professionals, and peers from across the country to increase leadership and problem-solving skills and prepare them to continue to make differences in their communities and beyond. Applications are accepted in late summer with the program running from October through May. The program is open to 10<sup>th</sup>-12<sup>th</sup> graders throughout Pennsylvania.

More information can be found on the KPB website: <https://www.keppabeautiful.org/programs/education/young-ambassadors-of-pennsylvania/>.

## Section 6. LESSONS LEARNED & KEY TAKEAWAYS

People in power are not often moved by talk of clean air or clean water. To get their attention, you must talk in terms of dollars and cents. Once you get their attention, keep your focus on the compounding cost of doing nothing. Offer solutions, specific actions, concrete examples - have a plan.

Systems change is incremental. Be patient, but persistent. Every step forward, no matter how small, gets you closer to your goal.

Build partnerships that can sustain your efforts over the long haul. Place your partners out front and keep your mission first. Check your ego at the door, this is not about you or your organization. Eventually, you will hear others saying what you have been saying, repeating the very calls to action that you have been calling for and this is when you know you have been successful.

Relationships are everything. Cherish them and take no one for granted. Everyone brings something to the table.

Keep Pennsylvania Beautiful is not just a cleanup organization. Nor is it just an education organization or a clearing house of information on waste, recycling, and proper disposal. While yes, we do all those activities, we are also advocates.

Empowering Pennsylvanians means ensuring that not only do Pennsylvanians have access to tools and resources needed to clean and beautify their communities but that the communities themselves have the systems in place to support keeping them clean and beautiful.

KPB empowers our affiliates, volunteers, and community partners across the Commonwealth by not only providing bags, vests, gloves, and direct funding but also by advocating policies, regulations and programs that support clean and beautiful communities.



Shannon Reiter, President, Keep Pennsylvania Beautiful, speaks at a hearing to support convenient, affordable disposal for all Pennsylvanians.



Keep Pennsylvania Beautiful, PennDOT and PA Department of Environmental Protection discuss litter initiatives with WESA radio.



Keep Pennsylvania Beautiful affiliates attend the Keep America National Conference in Washington D.C.

## **Section 7 LIST OF APPENDICES**

- Appendix 1      2019 Keep Pennsylvania Beautiful Litter Summit Agenda
- Appendix 2      2019 Keep Pennsylvania Beautiful Litter Summit – Post Summit Summary Report and Research Update
- Appendix 3      Request for Participation – The Cost of Littering and Illegal Dumping in Pennsylvania: A Study of Nine Cities
- Appendix 4      Litter Research Contacts for Media Inquiries
- Appendix 5      PA DEP News Release - The Cost of Littering and Illegal Dumping in Pennsylvania: A Study of Nine Cities
- Appendix 6      Keep Pennsylvania Beautiful News Release – Keep Pennsylvania Beautiful Shares Results of Litter Cost Study Comprising Data from Nine Cities Across Pennsylvania
- Appendix 7      Nine Cities News Release Template
- Appendix 8      Media Hits
- Appendix 9      Keep America Beautiful’s Model for Change





# 2019 LITTER SUMMIT

Sharing Findings from the Pennsylvania Litter Study | Taking Steps Toward a Strategy for Change

Thursday, November 14, 2019 | 7:30 AM - 4 PM | Hilton Harrisburg

## AGENDA

**7:30 AM - 8:30 AM | Registration and Continental Breakfast**

**8:30 AM - 9:00 AM | Welcome and Background of Litter Study**

– Keep Pennsylvania Beautiful

**9:00 AM - 10:00 AM | Pennsylvania Litter Research Study Results**

– Robert Craggs, *Department Manager-Solid Waste & Recovery/Environmental Global Practice*, Burns & McDonnell

**10:00 AM - 10:30 AM | Litter Impacts and Costs for Pennsylvania's Environment, Roadways, and Parks Panel Discussion**

– Patrick McDonnell, *Secretary*, DEP (Department of Environmental Protection)

– Leslie S. Richards, *Secretary*, PennDOT (Pennsylvania Department of Transportation)

– Mike Walsh, *Deputy Secretary for Administration*, DCNR (Department of Conservation & Natural Resources)

**10:30 AM - 10:45 AM | Break with Refreshments**

**10:45 AM - 11:45 PM | Highlights from the ongoing Cost of Litter and Illegal Dumping in Pennsylvania - A Study of Nine Cities Across the State Overview and Panel Discussion**

– Bruce Battle, *Environmental Scientist*, Burns & McDonnell

– Participating Municipalities Panel (Allentown, Harrisburg, Philadelphia and Pittsburgh)

**11:45 AM - 12:30 PM | Lunch Buffet**

**12:30 PM - 1:15 PM | Why People Litter and Behavior Change “5-Step Process”**

– Wesley Schultz, *Dean of Graduate Studies & Research*, California State University

**1:15 PM - 2:30 PM | Plastics & Recycling Panel Discussion**

**Global Trends in Plastics: Environmental, Economic and Reputational Costs**

– Anne Johnson, *Principal & Vice President of Global Corporate Sustainability*, RRS

**Recycling Infrastructure and Related Industries in Pennsylvania**

– Wayne Bowen, *Senior Recycling Program Manager*, Pennsylvania Recycling Markets Center

**2:30 PM - 2:45 PM | Break with Refreshments**

**2:45 PM - 4:00 PM | “Now What?” Identifying Priorities and Next Steps**

**Facilitated Discussion with Live Polling**

– Bruce Battle, *Environmental Scientist*, Burns & McDonnell

– Robert Craggs, *Department Manager-Solid Waste & Recovery/Environmental Global Practice*, Burns & McDonnell

## KEEP PENNSYLVANIA BEAUTIFUL LITTER SUMMIT

### Post Summit Summary Report

Keep Pennsylvania Beautiful hosted the November 14, 2019 Litter Summit in Coordination with DEP and PennDOT. Our goal was to bring together key stakeholders, share high-level results of the Pennsylvania Litter Research Study and Municipal Litter and Illegal Dumping Cost Study for Nine Pennsylvania Cities, and solicit input regarding strategic behavior change strategies to reduce littering and illegal dumping.

### REGISTERED ATTENDEES

KPB projected attendance to be between 100-150 individuals. Actual registrations totaled 124. A list of represented organizations and agencies follows as Table 1.



Phoebe Coles, KPB Chair; Patrick McDonnell, DEP Secretary; Shannon Reiter, KPB President; Leslie Richards, PennDOT Secretary; Mike Walsh, DCNR Deputy Secretary.

### POST SUMMIT SURVEY HIGHLIGHTS

Feedback on the Litter Summit was very positive. The survey was left open for two weeks post Summit and there was a 43% response rate. In addition to specific questions about the Summit and individual sessions, respondents provided over six pages of comments in response to open ended questions. Comments were mostly positive in tone and included, among other things, thoughtful feedback and input to be considered as we move forward.

- 93.9% of respondents felt the training was conducive to learning.
- 73.5% of respondents felt that they learned information to help implement or activate in their community
- 73.5% of respondents learned information to help implement or activate in their community.
- 12.2 % of respondents indicated that they are currently not active with KPB indicating that we reached a new audience
- Attendees represented a broad audience. When asked how attendees work with KPB, attendees identified as follows:
  - 30.6% KPB/KAB Affiliate
  - 32.7% Government Partner
  - 24.5% Nonprofit Partner
  - 2.00% Business Partner
  - 10.2% Other
- Sessions were well received. The following percentage is a combined score for Valuable, Very Valuable or Extremely Valuable for each session. Options also included Somewhat Valuable, Not Valuable and Did Not Attend:
  - 93.8% PA Litter Research Results
  - 87.8% Litter Impacts and Costs Agency Panel
  - 93.9% Highlights from the ongoing Cost of Litter and Illegal Dumping in PA – a Study of Nine Cities Across the State
  - 91.8% Why People Litter and Behavior Change
  - 79.6% Plastics and Recycling
  - 69.4% Interactive Session - Identifying Priorities and Next Steps

## MEDIA SUMMARY

KPB has accounted for more than 20 individual articles and news clips stemming from the 11/14/19 press releases that were issued from the State and KPB regarding the Litter Summit. The Litter Summit was featured on various social media pages with the following results as of December 2019:

- DEP: 508 external-audience visits to the press release on their website; 150 engagements on several Facebook posts and tweets
- PennDOT: 135 engagements from a single Facebook post.
- KPB: 507 engagements on six Facebook posts.
- Tone: Almost entirely positive

## SUMMIT SPONSORSHIP

There were nine individual sponsorships secured for a total of \$15,500. Sponsors included two private foundations and represented diverse stakeholder interests including food and beverage, energy, solid waste and recycling, and the tourism sectors.

- PA Beverage Association \$5,000
- Garver Foundation \$2,500
- Miller-Coors \$2,000
- Foundation for PA Watersheds \$2,000
- Poconos Mountain Visitors Bureau \$1,000
- GIANT Foods \$1,000
- Centre County Recycling and Refuse Authority \$500
- Columbia Gas \$500
- Waste Management \$1,000 (Affiliate Sponsorship for Allegheny County)

## REPRESENTED ORGANIZATIONS AND AGENCIES

Allegheny CleanWays  
Antis Township  
Baylor University  
Capital Region Water  
Central County Recycling &  
Refuse Authority  
City of Allentown  
City of Harrisburg  
City of Lancaster  
City of Philadelphia  
City of Pittsburgh  
City of Reading  
Clark's Creek Watershed  
Preservation Association  
Community Marketing  
Concepts  
Columbia Gas of  
Pennsylvania  
County of York  
Darby Creek Valley  
Association  
Friends of Pennypack Park

Friends of the Riverfront  
Foundation for PA  
Watersheds  
Garver Foundation  
Giant Food Stores, LLC  
Joint Legislative Conservation  
Committee  
Juniata County Conservation  
District  
Keep America Beautiful  
Keep Delaware Beautiful  
Keep Georgia Beautiful  
Foundation  
Keep Philadelphia Beautiful  
Keep Tennessee Beautiful  
Keep Texas Beautiful  
Keep Virginia Beautiful  
Lawrence County  
Lackawanna County  
Lancaster County Solid  
Waste Management  
Authority

Luzerne County Convention  
& Visitors Bureau  
McCutcheon Enterprises, Inc.  
Mercer County  
Monroe County Waste  
Authority  
Nestor Resources, Inc.  
Ocean Conservancy  
Overbrook Environmental  
Education Center  
PA Beverage Association  
PA Department of  
Conservation & Natural  
Resources  
PA Department of  
Environmental Protection  
PA Department of General  
Services  
PA Environmental Council  
PA Fish and Boat Commission  
PA Food Merchants  
Association

## REPRESENTED ORGANIZATIONS AND AGENCIES CONTINUED

PA Game Commission  
PA House of Representatives  
PA Liquor Control Board  
PA Recycling Markets Center  
PA Resources Council  
PA Waste Industry  
Association  
Partnership for the Delaware  
Estuary  
PennDOT

PennEnvironment  
Penn State Extension  
Pennsylvania Downtown  
Center  
Perry County Conservation  
District  
Philadelphia Water  
Department  
Pocono Mountains Visitors  
Bureau

PPO&S Marketing and  
Communications  
Republic Services  
Sierra Club PA Chapter  
Silver Lake Nature Center  
Tri-County Community  
Action  
Wawa, Inc.  
Wildheart Ministries





## REQUEST FOR PARTICIPATION

### THE COST OF LITTERING & ILLEGAL DUMPING IN PENNSYLVANIA:

#### A STUDY OF PENNSYLVANIA COMMUNITIES

As part of our ongoing effort to empower Pennsylvanians to keep their communities clean and beautiful, Keep Pennsylvania Beautiful requests participation of five to ten cities across the state to determine municipal costs of litter and illegal dumping.

#### Project Overview

Regardless of size and geography, municipalities expend significant efforts to address litter and illegal dumping in our communities and waterways. Nationally, approximately 6,700 pieces of litter are on each mile of roadway. In 2014, KPB, as part of the formal recommendations to significantly reduce illegal dumping in Pennsylvania, assessed that it costs roughly \$614/ton to clean up an illegal dump and each community cleanup costs an estimated \$3,000.00.

The proposed study would expand our efforts and provide an in-depth analysis of the costs incurred by individual municipalities when managing litter and illegal dumping at the municipal level. The proposed Study will provide cost averages for the following: Litter Prevention, Illegal Dump Prevention, Education and Outreach, Litter Abatement, Illegal Dump Abatement, and Enforcement.

As KPB continues to advocate for universal access for convenient and affordable trash disposal and recycling, this data will be critical in advancing our support for a more proactive approach when addressing litter and illegal dumping at the local, county and state levels. For instance, a similar study done for 9 cities in Texas, revealed that they spend more than \$50 million annually to prevent, combat and cleanup litter and illegal dumping in order to keep it from ending up in the state's waterways. Of that, 80% was dedicated to litter abatement and enforcement efforts and the remaining 20% was spent on prevention, education, and outreach activities.

#### Target Cities

KPB proposes targeting cities that are closely tied to Keep Pennsylvania Beautiful Affiliates. However, any city wishing to participate will be considered, pending local match.

#### Selected Cities & Local Match Requirement

Cities that wish to participate will be asked to provide 25% of the projected cost for their City based on population as outlined in Table 1 and sign an MOU that outlines terms of participation. This cost-sharing approach demonstrates that each participating city is committed to working towards a long-term, strategic solution to litter and illegal dumping in their communities. As an example, if City XX has a population of 78,000, their cost to participate is \$1,925.

Table 1. Participation Costs Based on Population			
Population (Thousands)	Cost	KPB Share 75%	Local Share 25%
<50	\$6,000	\$4,500	\$1,500
50>200	\$7,700	\$5,775	\$1,925
>200	\$11,000	\$8,250	\$2,750

#### Deliverables

In addition to the full report, each participating City will receive an individualized case study. As reference, the [Texans for Clean Water Study 2017](http://www.texansforcleanwater.org/uploads/1/0/9/3/10936519/cost_of_litter_and_illegal_dumping_final.pdf) is linked and can also be found at [http://www.texansforcleanwater.org/uploads/1/0/9/3/10936519/cost\\_of\\_litter\\_and\\_illegal\\_dumping\\_final.pdf](http://www.texansforcleanwater.org/uploads/1/0/9/3/10936519/cost_of_litter_and_illegal_dumping_final.pdf).

#### Contact

Please contact Shannon Reiter, Keep Pennsylvania Beautiful by November 30, 2018 if you are interested in learning more about how your City can participate: [sreiter@keeppabeautiful.org](mailto:sreiter@keeppabeautiful.org) or 724-836-4121.

*Due to limited funding, not all cities expressing interest will be included in the study.*



## Litter Research Contacts for Media Inquiries

*Prepared by Keep Pennsylvania Beautiful*

**Purpose:** This list is intended to support state agencies and city representatives as they respond, field and direct media inquiries related to the Pennsylvania Litter Research, specifically:

- 2019 Pennsylvania Litter Research Study
- The Cost of Litter & Illegal Dumping in Pennsylvania: A Study of Nine Cities Across the Commonwealth

**Release Timeline:**

- February 5 @ 11am
- DEP and PennDOT will issue a press release late morning
  - KPB will issue a state release shortly after, focusing on the Cost Study
  - We ask that cities hold off on any promotion or social media promotion of the studies until the state and KPB releases are sent

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Deputy Communications Director  
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### **Keep Pennsylvania Beautiful**

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### **Burns and McDonnell**

Elle Martens \ Burns & McDonnell  
Senior Communications Strategist  
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**City of Altoona**

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**FOR IMMEDIATE RELEASE**

02/5/2020

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**Pennsylvania to Ramp Up Litter Prevention Measures**

**Harrisburg, PA** – Today the Department of Environmental Protection (DEP), Department of Transportation (PennDOT), and Keep Pennsylvania Beautiful released the results of the first statewide comprehensive research on litter, the cost of cleaning it up, and attitudes toward litter and announced the formation of a state-led workgroup to shift Pennsylvania’s strategy from cleanup to prevention.

“Pennsylvania has a littering problem that cleanup efforts alone can’t solve. Litter undercuts our quality of life and the health of our waters and soil. It shortchanges community improvements and economic development, as funds that could otherwise be spent more productively instead go to trash cleanup,” said DEP Secretary Patrick McDonnell.

Field research results indicate more than 502 million pieces of litter on Pennsylvania’s roads. The most common items are cigarette butts (37 percent) and plastics (30 percent), with plastic film and beverage containers most prevalent. There are an estimated 29.3 million beverage containers alone on the roads. Motorists and pedestrians are leading sources of litter, followed by improperly secured truck loads.

Cities collectively spend over \$68 million annually on cleanup, education, enforcement, and prevention efforts related to litter and illegal dumping, according to a related [study of nine cities statewide](#) commissioned by Keep Pennsylvania Beautiful. Eighty percent of costs go specifically to cleanup, with Philadelphia spending more than \$36 million; Pittsburgh and Allentown spending more than \$2 million; Harrisburg, Lancaster, and



Reading spending over \$1 million; and Altoona, Erie, and Scranton spending hundreds of thousands of dollars each year.

PennDOT spends upwards of \$13 million per year on staff and resources to pick up litter along state-owned roadways.

“Cleanup is not a sustainable strategy,” said Acting PennDOT Secretary Yassmin Gramian, “and the enormous amount of resources committed to it mean less funding for other transportation uses, such as improving roads.”

In a phone survey to gauge Pennsylvanians’ attitudes toward litter, about 83 percent of respondents said they see educational messaging focused on litter prevention only occasionally or rarely. About 76 percent said littering reduces property values, negatively affects tourism and business, raises taxes due to cleanup, ends up in waterways, and is an environmental problem. About half of respondents said people litter because they don’t care or there’s no conveniently placed trash can.

The [Pennsylvania Litter Research Study](#) was conducted in 2018-2019 with funding from DEP, PennDOT, Keep America Beautiful, and Keep Pennsylvania Beautiful. It included on-the-ground litter counts in 180 locations statewide, a random phone survey of 500 residents, and a forum where 120 community, business, and government leaders shared their views on litter impacts and what should be done to end littering.

“We now have data from the most comprehensive statewide litter research effort ever conducted in Pennsylvania,” said Secretary McDonnell. “DEP is committed to working with our partners to use it strategically to shift the state’s approach to litter prevention, so that Pennsylvanians may gain community, economic, and environmental advantages they’re now sacrificing to litter cleanup.”

DEP, PennDOT, and Keep Pennsylvania Beautiful will form a workgroup of state government agencies, local governments, and industry and community leaders to use the research results to develop and carry out a plan of actions to reduce littering in Pennsylvania.

The goal is to build the action plan around four behavior change strategies, including infrastructure, such as waste and recycling facilities and trash cans; public and school-based education; laws and ordinances; and incentives and enforcement.

“We’re seeing that even extensive and expensive cleanup efforts can’t keep pace with the amount of litter that’s accumulating,” said Keep Pennsylvania Beautiful President Shannon Reiter. “The only way to reduce this cost burden is to reduce littering through preventive measures, such as expanding solid waste and recycling infrastructure and developing effective school-based and consumer education.”

Learn more about the state litter research results and littering reduction initiative at [www.dep.pa.gov/litteringactionplan](http://www.dep.pa.gov/litteringactionplan).

Keep Pennsylvania Beautiful, DEP, and PennDOT have partnered for 15 years on an annual [Pick Up Pennsylvania](#) campaign. Many thousands of Pennsylvanians have volunteered in these local community projects, removing millions of pounds of trash.

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## FOR IMMEDIATE RELEASE

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## Keep Pennsylvania Beautiful Shares Results of Litter Cost Study Comprising Data from Nine Cities across Pennsylvania

*Study shows cities spend millions annually addressing litter  
and illegal dumping*

**Greensburg, PA** (Feb. 5, 2020) – In 2019, Keep Pennsylvania Beautiful commissioned Burns & McDonnell to document how much it costs nine Pennsylvania cities, varying in size and location across the Commonwealth, to manage litter and illegal dumping. Keep Pennsylvania Beautiful released results to the public February 5, 2020. ([www.dep.pa.gov/litteringactionplan](http://www.dep.pa.gov/litteringactionplan))

The study found that Allentown, Altoona, Erie, Harrisburg, Lancaster, Philadelphia, Pittsburgh, Reading, and Scranton collectively spend more than \$68 million annually on cleanup, education, enforcement, and prevention efforts to address litter and illegal dumping. Eighty percent of the total costs go to clean up efforts and just 13% towards preventative measures.

The cost of dealing with litter and illegal dumping are quite large for communities but are often obscured because they are dispersed across various governmental departments as well as community-based organizations and volunteer groups.

“While litter and illegal dumping are often discussed as social or environmental problems, rarely do we think about their economic impact,” explains Shannon Reiter, President, Keep Pennsylvania Beautiful. “Understanding these costs is a critical first step in developing strategies to change littering behavior. We’re seeing that even extensive and expensive cleanup efforts can’t keep pace with the amount of litter that’s accumulating. The only way to reduce this cost burden is to reduce littering through preventive measures, such as expanding solid waste and recycling infrastructure and developing effective school-based and consumer education.”

“Through interviews, research and extensive data collection in nine cities of various sizes across the Commonwealth, we documented the annual costs for addressing litter and illegal dumping within each city,” says Veronica Roof, senior compliance specialist at [Burns & McDonnell](#). “The Pennsylvania Department of Transportation, cities and organizations incur significant costs each year to prevent and clean up litter and illegal dumping in communities. Through this study, we’re proud to support Keep Pennsylvania Beautiful’s effort to create a cleaner, healthier and more prosperous Pennsylvania.”

This study was made possible with financial support from the Richard King Mellon Foundation and each of the nine participating cities. Indirect support was provided by the Pennsylvania Department of Environmental Protection.

In tandem, the Departments of Environmental Protection (DEP) and Transportation (PennDOT) and Keep Pennsylvania Beautiful released reports with the first statewide scientific data on litter and litter attitudes in Pennsylvania.

The [Pennsylvania Litter Research Study](#) was conducted in 2018-2019 with funding from DEP, PennDOT, Keep America Beautiful, and Keep Pennsylvania Beautiful. Field results indicate more than 502 million pieces of litter on Pennsylvania roads. The most common items are cigarette butts (37%) and plastics (30%), with plastic film and beverage containers most prevalent. Motorists and pedestrians are leading sources of litter, followed by improperly secured truck loads. Additionally, more than 90% of phone survey respondents said littering is a problem in Pennsylvania. More than 76% said it reduces property values and negatively affects tourism and business.

“We documented and identified the quantity, composition and sources of litter. We also looked at the attitudes around litter in Pennsylvania,” Roof says. “Whether intentional or unintentional, litter negatively impacts quality of life, our environment and economy. Studies like this one help inform a customized, strategic plan to reduce littering.” Learn more about Pennsylvania’s litter research results and littering reduction initiative at <http://www.dep.pa.gov/litteringactionplan>.

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### **About Keep Pennsylvania Beautiful**

Keep Pennsylvania Beautiful’s mission is empowering Pennsylvanians to make our communities clean and beautiful. Since 1990, Keep Pennsylvania Beautiful and its volunteers have removed over 141 million pounds of litter from Pennsylvania’s roadways, greenways, parks, forests, and waterways. To learn more about Keep Pennsylvania Beautiful, visit [www.keeppabeautiful.org](http://www.keeppabeautiful.org).



## **Keep Pennsylvania Beautiful Shares Results of Litter Cost Study Comprising Data from Nine Cities across Pennsylvania**

*Study shows cities spend millions annually addressing litter and illegal dumping*

**XXXXX, PA** (Feb. 5, 2020) – **Your City**, along with Keep Pennsylvania beautiful share the results of The Cost of Litter & Illegal Dumping in Pennsylvania - A Study of Nine Cities Across the Commonwealth.

In 2019, Keep Pennsylvania Beautiful commissioned Burns & McDonnell to document how much it costs nine Pennsylvania cities, varying in size and location across the Commonwealth, to manage litter and illegal dumping. Keep Pennsylvania Beautiful released results to the public Feb. 5, 2020.

The study found that Allentown, Altoona, Erie, Harrisburg, Lancaster, Philadelphia, Pittsburgh, Reading, and Scranton collectively spend more than \$68 million annually on cleanup, education, enforcement, and prevention efforts to address litter and illegal dumping. Eighty percent of the total costs go to clean up efforts and just 13% towards preventative measures.

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### **INSERT LOCAL INFORMATION**

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Learn more about Pennsylvania's litter research results and littering reduction initiative at [\[DEP Website URL TO COME\]](#)

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## Pennsylvania Litter Research Study and The Cost of Litter and Illegal Dumping in Pennsylvania – A Study of Nine Cities

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Updated 3/10/20

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Trib Live - Sounding off: Reducing litter, keeping America beautiful

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Latrobe Bulletin - Recent study identified over 500 million pieces of litter on Pa. roadways (Subscription Needed)

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Butler Eagle - Cost to pick up litter could feed thousands

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Butler Eagle – Cost to pick up litter could feed thousands (Subscription Needed)

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# BEHAVIOR CHANGE MODEL

ACADEMICALLY DEVELOPED, DECADES OF FIELD DELIVERY

The KAB Behavior Change System is an integrated approach that serves as the primary tool for the development and implementation of behavior change programs by affiliates

The process includes: a Five-Step Management Process and Four Behavior Change Strategies

The System engages people at every step and results in sustainable change for the greater good

